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Water Resources Data for Nebraska
Water Year 1979

(U.S.) Geological Survey, Lincoln, NE

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DEPARTMENT OF THE INTERIOR
March 3, 1849

MARCH 1st 1867

Water Resources Data for Nebraska

U.S. GEOLOGICAL SURVEY WATER-DATA REPORT NE-79-1

WATER YEAR 1979

Prepared in cooperation with the Nebraska Department of Water Resources, the Conservation and Survey Division of the University of Nebraska, the Nebraska Natural Resources Commission, and with other State and Federal agencies

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SPRINGFIELD, VA 22161

CALENDAR FOR WATER YEAR 1979

1978

OCTOBER

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1979

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Water Resources Data for Nebraska

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Department of Water Resources, the Conservation
and Survey Division of the University of Nebraska,
the Nebraska Natural Resources Commission,
and with other State and Federal agencies

UNITED STATES DEPARTMENT OF THE INTERIOR

CECIL D. ANDRUS, Secretary

GEOLOGICAL SURVEY

H. William Menard, Director

For information on the water program in Nebraska write to:
District Chief, Water Resources Division
U.S. Geological Survey
Room 406, Federal Building
100 Centennial Mall - North
Lincoln, Nebraska 68508

1980

PREFACE

This report was prepared by personnel of the Nebraska District of the Water Resources Division of the U.S. Geological Survey under the supervision of W.M.Kastner, District Chief, and Alfred Clebsch, Jr., Regional Hydrologist, Central Region. It was done in cooperation with the State of Nebraska and with other agencies.

This report is one of a series issued by state. General direction for the series is by Phillip Cohen, Chief Hydrologist, U. S. Geological Survey, and R. J. Dingman, Assistant Chief Hydrologist for Scientific Publications and Data Management.

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Water resources data for the 1979 water year for Nebraska consist of records of stage, discharge, and water quality of streams; stage and contents of lakes and reservoirs; and water levels and water quality in wells and springs. This report contains discharge records for 161 gaging stations; stage and contents for 10 lakes and reservoirs; water quality for 60 gaging stations, 10 ungaged stations, 34 partial-record flow stations, and 276 wells; and water levels for 63 observation wells. Also included are 7 crest-stage partial-record stations. Additional water data were collected at various sites, not part of the systematic data-collection program, and are published as miscellaneous measurements. These data represent that part of the National Water Data System operated by the U.S. Geological Survey and cooperating State and Federal agencies in Nebraska.

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[Letter after station name designates type of data: (d) discharge, (c) chemical, (b) biological, (m) microbiological, (t) water temperature, and (s) sediment]

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WATER RESOURCES DATA FOR NEBRASKA, 1979

INTRODUCTION

Water-resources data for the 1979 water year for Nebraska consist of records of stage, discharge, and water quality of streams; stage, contents, and water quality of lakes and reservoirs; and water levels and water quality of ground water. This report contains discharge records for 161 gaging stations; stage and contents for 10 lakes and reservoirs; water quality for 60 gaging stations, 10 ungaged stations, 34 partial-record flow or miscellaneous stations, and 276 wells; and water levels for 63 observation wells. Also included are data for 7 crest-stage partial-record stations. Locations of the complete-record stations, crest-stage partial-record stations, surface-water quality stations,and selected observation wells are shown in figures 2, 3, 4, and 5, respectively. Additional water data were collected at various sites, not part of the systematic data-collection program, and are published as miscellaneous measurements. These data represent that part of the National Water Data System operated by the U.S. Geological Survey and cooperating State and Federal agencies in Nebraska.

Records of discharge and stage of streams, and contents or stage of lakes and reservoirs were first published in a series of U.S. Geological Survey water-supply papers entitled, "Surface Water Supply of the United States." Through September 1960, these water-supply papers were in an annual series and then in a 5-year series for 1961-65 and 1966-70. Records of chemical quality, water temperatures, and suspended sediment were published from 1941 to 1970 in an annual series of water-supply papers entitled, "Quality of Surface Waters of the United States." Records of ground-water levels were published from 1935 to 1974 in a series of water-supply papers entitled, "Ground-Water Levels in the United States." Water-supply papers may be consulted in the libraries of the principal cities in the United States or may be purchased from Branch of Distribution, U.S. Geological Survey, 1200 South Eads Street, Arlington, VA 22202.

For water years 1961 through 1974, streamflow data were released by the Geological Survey in annual reports on a State-boundary basis. Water-quality records for water years 1964 through 1974 were similarly released either in separate reports or in conjunction with streamflow records.

Beginning with the 1975 water year, water data for streamflow, water quality, and ground water are published in official Survey reports on a State-boundary basis. These official Survey reports carry an identification number consisting of the two-letter State abbreviation, the last two digits of the water year, and the volume number. For example, this volume is identified as "U.S. Geological Survey Water-Data Report NE-79-1". For archiving and general distribution, the reports for water years 1971-74 are also identified as water-data reports. These water-data reports are for sale, in paper copy or in microfiche by the National Technical Information Service, U.S. Department of Commerce, Springfield, VA 22161.

Additional information, including current prices, for ordering specific reports may be obtained from the district chief at the address given on back of title page or by telephone (402) 471-5082.

COOPERATION

The U.S. Geological Survey and organizations of the State of Nebraska have had cooperative agreements for the collection of water-resource records since 1930. Organizations that assisted in collecting the data in this report through cooperative agreement with the Survey are:

Nebraska Department of Water Resources, John W. Neuberger, Director

Conservation and Survey Division, University of Nebraska-Lincoln, V. H. Dreeszen, Director

Nebraska Natural Resources Commission, Dayle E. Williamson, Executive Secretary

Nebraska Department of Roads, David Coolidge, Director-State Engineer

Big Blue River Compact Administration

Assistance in the form of funds or services was given by the Corps of Engineers, U.S. Army, in collecting records for 35 gaging stations and 2 daily sediment stations; by the U.S. Environmental Protection Agency in collecting records for 2 water-quality stations; and by the Water and Power Resources Service, formerly Bureau of Reclamation, in collecting sediment records for 1 station and providing elevations or capacity tables for 8 reservoir stations published in this report.

The following organizations aided in collecting records: Central Nebraska Public Power and Irrigation District, Nebraska Public Power District, and Loup River Public Power District.

ACKNOWLEDGMENT

Nebraska district personnel who contributed significantly to the collection and preparation of the data in this report were: G. B. Engel, R. A. Engberg, M. S. Johnson, E. K. Steele, Jr., M. Kubicek, C. R. Liggett, and H. D. Stephens.

HYDROLOGIC CONDITIONS

Dry conditions continued into the 1979 water year. Streamflow was in the deficient range (lower 25 percent of record) from October 1978 through February 1979 at Elkhorn River at Waterloo in eastern Nebraska. Flow was also below normal in the Republican River basin in southwestern Nebraska for the same period. At Niobrara River above Box Butte Reservoir in northwestern Nebraska, streamflow was deficient from November 1978 through February 1979. In January, the Sand Hills and parts of northwestern Nebraska were declared a disaster area by the Governor. Because of the heavy snowfall, cold temperatures, and blocked roads, ranchers suffered cattle losses when feed could not be delivered to the livestock. In March, snowmelt and ice breakup produced moderate rises on streams in most areas of the State. In eastern Nebraska, ice jams produced high stages on the Platte and Elkhorn Rivers. About 15,000 acres (6 070 hm^2) of low farmland were flooded in the eastern part of the State. Streamflow returned to normal in most areas of the State during the spring. Very dry conditions prevailed in the Republican River basin in May and June. Thundershowers in July brought some relief to the area. Streamflow was again below normal in June and July in eastern Nebraska. Mean discharge for the year was in the normal range at Elkhorn River at Waterloo, but was below normal at Niobrara River above Box Butte Reservoir in northwestern Nebraska. Southwestern Nebraska continued to be dry, with streamflow below normal for most of the year. Flow in the North Platte River basin was generally in the normal range and storage in Lake McConaughy increased 244,000 acre-feet (301 hm^3) during the year.

Specific conductance values were in the normal range during the 1979 water year for water from 12 locations statewide where specific conductance is measured on a daily basis. No new maximum or minimum specific conductance values for the period of record were observed during the 1979 water year. Maximum water temperatures for the period of record were observed for two locations during the 1979 water year. These maximums were 32.0°C for the North Loup River at Taylor on July 3, and 36.0°C for the Platte River at Louisville on August 19.

Of a statewide total of 276 wells sampled during the 1979 water year, 92 were sampled in an area bounded on the north by the Platte River, on the south by the Republican River, and comprising all or part of Frontier, Hayes, Hitchcock, Lincoln, and Red Willow counties. The purpose of this intensive sampling was to survey the quality of water in support of a ground-water flow model presently being prepared for the area. All 92 wells derive water from the Ogallala aquifer. Specific conductance ranged from 274 to 770 umho/cm and, with two exceptions, nitrite plus nitrate as N ranged from 0.63 to 7.8 mg/L. Water from the exceptions, both domestic wells contained 18 and 20 mg/L nitrite plus nitrate as N, respecitvely. The mean nitrite plus nitrate as N concentrations for all wells was 3.1 mg/L.

Ground-water levels showed a net rise for the year in most wells, as normal to above-normal precipitation in the spring and early summer recharged the aquifer and reduced the need for irrigation withdrawals in many areas. Levels declined only in areas of southwestern and south-central Nebraska where intensive ground-water development has caused long-term declines. In all areas except the southwest, levels were near or slightly above long-term averages at the end of the 1979 water year.

DEFINITION OF TERMS

Terms related to streamflow, water-quality, and other hydrologic data, as used in this report, are defined below. See also table for converting English units to International System (SI) Units on the inside of the back cover.

Acre-foot (AC-FT, acre-ft) is the quantity of water required to cover 1 acre to a depth of 1 foot and is equal to 43,560 cubic feet or about 326,000 gallons or 1,233 cubic meters.

Algae are mostly aquatic single-celled, colonial, or multicelled plants, containing chlorophyll and lacking roots, stems, and leaves.

Aquifer is a geologic formation, group of formations, or part of a formation that contains sufficient saturated permeable material to yield significant quantities of water to wells and springs.

Bacteria are microscopic unicellular organisms, typically spherical, rodlike, or spiral and threadlike in shape, often clumped into colonies. Some bacteria cause disease, others perform an essential role in nature in the recycling of materials; for example, by decomposing organic matter into a form available for reuse by plants.

Total coliform bacteria are a particular group of bacteria that are used as indicators of possible sewage pollution. They are characterized as aerobic or facultative anaerobic. gram-negative, nonspore-forming, rod-shaped bacteria which ferment lactose with gas formation within 48 hours at 35°C. In the laboratory these bacteria are defined as all the organisms which produce colonies with a golden-green metallic sheen within 24 hours when incubated at 35°C ± 1.0°C on M-Endo medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Fecal coliform bacteria are bacteria that are present in the intestine or feces of warmblooded animals. They are often used as indicators of the sanitary quality of the water. In the laboratory they are defined as all organisms which produce blue colonies within 24 hours when incubated at 44.5°C ± 0.2°C on M-FC medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Fecal streptococcal bacteria are bacteria found also in the intestine of warmblooded animals. Their presence in water is considered to verify fecal pollution. They are characterized as gram-positive, cocci bacteria which are capable of growth in brain-heart infusion broth. In the laboratory they are defined as all the organisms which produce red or pink colonies within 48 hours at 35°C ± 1.0°C on M-enterrococcus medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Bed material is the unconsolidated material of which a streambed, lake, pond, reservoir, or estuary bottom is composed.

Biochemical oxygen demand (BOD) is a measure of the quantity of dissolved oxygen, in milligrams per liter, necessary for the decomposition of organic matter by micro-organisms, such as bacteria.

Biomass is the amount of living matter present at any given time, expressed as the mass per unit area or volume of habitat.

Ash mass is the weight or amount of residue present after the residue from the dry mass determination has been ashed in a muffle furnace at a temperature of 500°C for 1 hour. The ash mass values of zooplankton and phytoplankton are expressed in g/m^3 (grams per cubic meter), and periphyton and benthic organisms in g/m^2 (grams per square meter).

Dry mass refers to the mass of residue present after drying in an oven at 60°C for zooplankton and 105°C for periphyton, until the mass remains unchanged. This mass represents the total organic matter, ash and sediment, in the sample. Dry mass values are expressed in the same units as ash mass.

Organic mass or volatile mass of the living substance is the difference between the dry mass and the ash mass, and represents the actual weight of the living matter. The organic mass weight is expressed in the same units as for ash and dry mass.

Wet mass is the mass of living matter plus contained water.

Cfs-day is the volume of water represented by a flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, approximately 1.9835 acre-feet, about 646,000 gallons, or 2,445 cubic meters.

Chemical oxygen demand (COD) is a measure of the chemically oxidizable material in the water, and furnishes an approximation of the amount of organic and reducing material present. The determined value may correlate with natural water color or with carbonaceous organic pollution from sewage or industrial wastes.

Chlorophyll refers to the green pigments of plants. Chlorophyll a and b are the two most common green pigments in plants.

Contents is the volume of water in a reservoir or lake. Unless otherwise indicated, volume is computed on the basis of a level pool and does not include bank storage.

Control designates a feature downstream from the gage that determines the stage-discharge relation at the gage. This feature may be a natural constriction of the channel, an artificial structure, or a uniform cross section over a long reach of the channel.

Cubic foot per second (CFS, ft^3/s) is the rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second and is equivalent to 7.48 gallons per second or 448.8 gallons per minute or 0.02832 cubic meters per second.

Discharge is the volume of water (or more broadly, volume of fluid plus suspended sediment) that passes a given point within a given period of time.

Mean discharge (MEAN) is the arithmetic mean of individual daily mean discharges during a specific period.

Instantaneous discharge is the discharge at a particular instant of time.

Dissolved refers to that material in a representative water sample which passes through a 0.45 µm membrane filter. This is a convenient operational definition used by Federal agencies that collect water data. Determinations of "dissolved" constituents are made on subsamples of the filtrate.

Drainage area of a stream at a specified location is that area, measured in a horizontal plane, enclosed by a topographic divide from which direct surface runoff from precipitation normally drains by gravity into the stream above the specified point. Figures of drainage area given herein include all closed basins, or noncontributing areas, within the area unless otherwise noted.

Drainage basin is a part of the surface of the earth that is occupied by a drainage system, which consists of a surface stream or a body of impounded surface water together with all tributary surface streams and bodies of impounded surface water.

Gage height (G.H.) is the water-surface elevation referred to some arbitrary gage datum. Gage height is often used interchangeably with the more general term "stage," although gage height is more appropriate when used with a reading on a gage.

Gaging station is a particular site on a stream, canal, lake, or reservoir where systematic observations of gage height or discharge are obtained.

Hardness of water is a physical-chemical characteristic that is commonly recognized by the increased quantity of soap required to produce lather. It is attributable to the presence of alkaline earths (principally calcium and magnesium) and is expressed as equivalent calcium carbonate ($CaCO_3$).

Hydrologic unit is a geographic area representing part or all of a surface drainage basin or distinct hydrologic feature as delineated by the Office of Water Data Coordination on the State Hydrologic Unit Maps; each hydrologic unit is identified by an 8-digit number.

Methylene blue active substance (MBAS) is a measure of apparent detergents. This determination depends on the formation of a blue color when methylene blue dye reacts with synthetic detergent compounds.

Micrograms per kilogram (µg/kg) is a unit expressing the concentration of a chemical element as the mass (micrograms) of the element sorbed per unit mass (kilogram) of sediment.

Micrograms per liter (UG/L, µg/L) is a unit for expressing the concentration of chemical constituents in solution. It represents one one-thousandth of a milligram of constituent in a liter of solution.

Milligrams per liter (MG/L, mg/L) is a unit for expressing the concentration of chemical constituents in solution. Milligrams per liter represents the mass of solute per unit volume (liter) of water. Milligrams or micrograms per liter may be converted to milliequivalents per liter by using the factors in table 1 (see p. 14). Concentrations of suspended sediment also is expressed in mg/L and is based on the mass of sediment per liter of water-sediment mixture. Sediment concentration may be converted to parts per million by using the factors in table 2 (see p. 14).

National Geodetic Vertical Datum of 1929 (NGVD) is a geodetic datum derived from a general adjustment of the first order level nets of both the United States and Canada. It was formerly called "Sea Level Datum of 1929" or "mean sea level" in this series of reports. Although the datum was derived from the average sea level over a period of many years at 26 tide stations along the Atlantic, Gulf of Mexico, and Pacific Coasts, it does not necessarily represent local mean sea level at any particular place.

Organism is any living entity, such as an insect, phytoplankter, or zooplankter.

Organism count/area refers to the number of organisms collected and enumerated in a sample and adjusted to the number per area habitat, usually square meters (m^2), acres, or hectares. Periphyton, benthic organisms, and macrophytes are expressed in these terms.

Organism count/volume refers to the number of organisms collected and enumerated in a sample and adjusted to the number per sample volume, usually milliliters (mL) or liters (L). Numbers of planktonic organisms can be expressed in these terms.

Total organism count is the total number of organisms collected and enumerated in any particular sample.

Partial-record station is a particular site where limited streamflow and/or water-quality data are collected systematically over a period of years for use in hydrologic analyses.

Particle size is the diameter, in millimeters (mm), of suspended sediment or bed material determined by either sieve or sedimentation methods. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulation tube) determine fall diameter of particles in either distilled water (chemically dispersed) or in native water (the river water at the time and point of sampling).

Particle-size classification used in this report agrees with the recommendation made by the American Geophysical Union Subcommittee on Sediment Terminology.

The classification is as follows:

Classification	Size (mm)	Method of analysis
Clay..........	0.00024 - 0.004	Sedimentation
Silt..........	.004 - .062	Sedimentation
Sand..........	.062 - 2.0	Sedimentation or sieve
Gravel........	2.0 - 64.0	Sieve

The particle-size distributions given in this report are not necessarily representative of all particles in transport in the stream. Most of the organic matter is removed and the sample is subjected to mechanical and chemical dispersion before analysis in distilled water. Chemical dispersion is not used for native water analysis.

Percent composition is a unit for expressing the ratio of a particular part of a sample or population to the total sample or population in terms of types, numbers, mass, or volume.

Periphyton is the assemblage of microorganisms attached to and growing upon solid surfaces. While primarily consisting of algae, they also include bacteria, fungi, protozoa, rotifers, and other small organisms.

Pesticides are chemical compounds used to control undesirable plants and animals. Major categories of pesticides include insecticides, miticides, fungicides, herbicides, and rodenticides. Insecticides and herbicides, which control insects and plants respectively, are the two categories reported.

Picocurie (PC, pCi) is one trillionth (1×10^{12}) of the amount of radioactivity represented by a curie (Ci). A curie is the amount of radioactivity that yields 3.7×10^{10} radioactive disintegrations per second. A picocurie yields 2.22 dpm (disintegrations per minute).

Plankton is the community of suspended, floating, or weakly swimming organisms that live in the open water of lakes and rivers.

Phytoplankton is the plant part of the plankton. They are usually microscopic and their movement is subject to the water currents. Phytoplankton growth is dependent upon solar radiation and nutrient substances. Because they are able to incorporate as well as release materials to the surrounding water, the phytoplankton have a profound effect upon the quality of the water. They are the primary food producers in the aquatic environment, and are commonly known as algae.

Blue-green algae are a group of phytoplankton organisms having a blue pigment, in addition to the green pigment called chlorophyll. Blue-green algae often cause nuisance conditions in water.

Diatoms are the unicellular or colonial algae having a siliceous shell. Their concentrations are expressed as number of cells per milliliter (cells/mL) of sample.

Green algae have chlorophyll pigments similar in color to those of higher green plants. Some forms produce algae mats or floating "moss" in lakes. Their concentrations are expressed as number of cells per milliliter (cells/mL) of sample.

Polychlorinated biphenyls (PCB's) are industrial chemicals that are mixtures of chlorinated biphenyl compounds having various percentages of chlorine. They are similar in structure to organochlorine insecticides.

Recoverable from bottom material is the amount of a given constituent that is in solution after a representative sample of bottom material has been digested by a method (usually using an acid or mixture of acids) that results in dissolution of only readily soluble substances. Complete dissolution of all bottom material is not achieved by the digestion treatment and thus the determination represents less than the total amount (that is, less than 95 percent) of the constituent in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Sediment is solid material that originates mostly from disintegrated rocks and is transported by, suspended in, or deposited from water; it includes chemical and biochemical precipitates and decomposed organic material such as humus. The quantity, characteristics, and cause of the occurrence of sediment in streams are influenced by environmental factors. Some major factors are degree of slope, length of slope, soil characteristics, land usage, and quantity and intensity of precipitation.

Suspended sediment is the sediment that at any given time is maintained in suspension by the upward components of turbulent currents or that exists in suspension as a colloid.

Suspended-sediment concentration is the velocity-weighted concentration of suspended sediment in the sampled zone (from the water surface to a point approximately 0.3 ft above the bed) expressed as milligrams of dry sediment per liter of water-sediment mixture (mg/L).

Suspended-sediment discharge (tons/day) is the rate at which dry weight of sediment passes a section of a stream or is the quantity of sediment, as measured by dry weight or volume, that is discharged in a given time. It is calculated in units of tons per day as follows: concentration (mg/L) x discharge (ft^3/s) x 0.0027.

Suspended-sediment load is quantity of suspended sediment passing a section in a specified period.

Total sediment discharge (tons/day) is the sum of the suspended-sediment discharge and the bed-load discharge. It is the total quantity of sediment, as measured by dry weight or volume, that passes a section during a given time.

Mean concentration is the time-weighted concentration of suspended sediment passing a stream section during a 24-hour day.

Sodium-adsorption-ratio (SAR) is the expression of relative activity of sodium ions in exchange reaction with soil and is an index of sodium or alkali hazard to the soil. This ratio should be known especially for water used for irrigating farmland.

Solute is any substance derived from the atmosphere, vegetation, soil, or rocks that is dissolved in water.

Specific conductance is a measure of the ability of a water to conduct an electrical current and is expressed in micromhos per centimeter at 25°C. Because the specific conductance is related to the number and specific chemical types of ions in solution, it can be used for approximating the dissolved-solids content of the water. Commonly, the concentration of dissolved solids (in milligrams per liter) is about 65 percent of the specific conductance (in micromhos). This relation is not constant from stream to stream or from well to well, and it may vary in the same source with changes in the composition of the water.

Stage-discharge relation is the relation between gage height (stage) and the volume of water, per unit of time, flowing in a channel.

Streamflow is the discharge that occurs in a natural channel. Although the term "discharge" can be applied to the flow of a canal, the word "streamflow" uniquely describes the discharge in a surface stream course. The term "streamflow" is more general than "runoff" as streamflow may be applied to discharge whether or not it is affected by diversion or regulation.

Substrate is the physical surface upon which an organism lives.

Natural substrate refers to any naturally occurring emersed or submersed solid surface, such as a rock or tree, upon which an organism lives.

Artificial substrate is a device which is purposely placed in a stream or lake for colonization of organisms. The artificial substrate simplifies the community structure by standardizing the substrate from which each sample is taken. Examples of artificial substrates are basket samplers (made of wire cages filled with clean streamside rocks) and multiplate samplers (made of hardboard) for benthic organism collection, and plexiglass strips for periphyton collection.

Suspended, recoverable is the amount of a given constituent that is in solution after the part of a representative water-suspended sediment sample that is retained on a 0.45 µm membrane filter has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all the particulate matter is not achieved by the digestion treatment and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Determinations of "suspended, recoverable" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total recoverable concentrations of the constituent.

Suspended, total is the total amount of a given constituent in the part of a representative water-suspended sediment sample that is retained on a 0.45 µm membrane filter. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to determine when the results should be reported as "suspended, total."

Determinations of "suspended, total" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total concentrations of the constituent.

Taxonomy is the division of biology concerned with the classification and naming of organisms. The classification of organisms is based upon a hierarchial scheme beginning with Kingdom and ending with Species at the base. The higher the classification level, the fewer features the organisms have in common. For example, the taxonomy of a particular mayfly, Hexagenia limbata, is the following:

Kingdom	Animal
Phylum	Arthropoda
Class	Insecta
Order	Ephemeroptera
Family	Ephemeridae
Genus	Hexagenia
Species	Hexagenia limbata

Thermograph is an instrument that continuously records variations of temperature on a chart. The more general term "temperature recorder" is used in the table headings and refers to any instrument that records temperature whether on a chart, a tape, or any other medium.

Tons per acre-foot indicates the dry mass of dissolved solids in 1 acre-foot of water. It is computed by multiplying the concentration of the constituent, in milligrams per liter, by 0.00136.

Tons per day is the quantity of a substance in solution or suspension that passes a stream section during a 24-hour period.

Total is the total amount of a given constituent in a representative water-suspended sediment sample, regardless of the constituent's physical or chemical form. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent present in both the dissolved and suspended phases of the sample. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to judge when the results should be reported as "total." (Note that the word "total" does double duty here, indicating both that the sample consists of a water-suspended sediment mixture and that the analytical method determines all of the constituent in the sample.)

Total, recoverable is the amount of a given constituent that is in solution after a representative water-suspended sediment sample has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all particulate matter is not achieved by the digestion treatment, and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the dissolved and suspended phases of the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses, because different digestion procedures are likely to produce different analytical results.

Water year in Geological Survey reports dealing with surface-water supply is the 12-month period, October 1 through September 30. The water year is designated by the calendar year in which it ends and which includes 9 of the 12 months. Thus, the year ending September 30, 1978, is called the "1978 water year."

WDR is used as an abbreviation for "Water-Data Report" in the REVISED RECORDS paragraph to refer to State annual basic-data reports (WRD was used as an abbreviation for "Water-Resources Data" in reports published prior to 1976).

WSP is used as an abbreviation for "Water-Supply Paper" in references to previously published reports.

DOWNSTREAM ORDER AND STATION NUMBER

Since October 1, 1950, the order of listing hydrologic-station records in Survey reports is in a downstream direction along the main stream. All stations on a tributary entering upstream from a main-stream station are listed before that station. A station on a tributary that enters between two main-stream stations is listed between them. A similar order is followed in listing stations on first rank, second rank, and other ranks of tributaries. The rank of any tributary on which a station is situated with respect to the stream to which it is immediately tributary is indicated by an indention in a list of stations in the front of the report. Each indention represents one rank. This downstream order and system of indention show which stations are on tributaries between any two stations and the rank of the tributary on which each station is situated.

As an added means of identification, each hydrologic station and partial-record station has been assigned a station number. These are in the same downstream order used in this report. In assigning station numbers, no distinction is made between partial-record stations and other stations; therefore, the station number for a partial-record station indicates downstream-order position in a list made up of both types of stations. Gaps are left in the series of numbers to allow for new stations that may be established; hence, the numbers are not consecutive. The complete 8-digit number for each station such as 06796000, which appears just to the left of the station name, includes the 2-digit part number "06" plus the 6-digit downstream-order number "796000."

NUMBERING SYSTEM FOR WELLS AND MISCELLANEOUS SITES

The 8-digit downstream-order station numbers are not assigned to wells and miscellaneous sites where only random water-quality samples or discharge measurements are taken.

The well and miscellaneous site numbering system of the U.S. Geological Survey is based on the grid system of latitude and longitude. The system provides the geographic location of the well or miscellaneous site and a unique number for each site. The number consists of 15 digits. The first 6 digits denote the degrees, minutes, and seconds of latitude, the next 7 digits denote degrees, minutes, and seconds of longitude, and the last 2 digits (assigned sequentially) identify the wells or other sites within a 1-second grid. See figure 1 below.

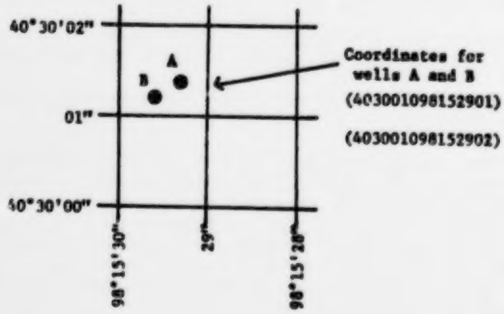


Figure 1. System for numbering wells and miscellaneous sites (latitude and longitude).

SPECIAL NETWORKS AND PROGRAMS

Hydrologic bench-mark station is one that provides hydrologic data for a basin in which the hydrologic regimen will likely be governed solely by natural conditions. Data collected at a bench-mark station may be used to separate effects of natural from manmade changes in other basins which have been developed and in which the physiography, climate, and geology are similar to those in the undeveloped bench-mark basin.

National stream-quality accounting network (NASQAN) is a data-collection network designed by the U.S. Geological Survey to meet many of the information demands of agencies or groups involved in national or regional water-quality planning and management. Both accounting and broad-scale monitoring objectives have been incorporated into the network design. Areal configuration of the network is based on river-basin accounting units (identified by 8-digit hydrologic-unit numbers) designated by the Office of Water Data Coordination in consultation with the Water Resources Council. Primary objectives of the network are (1) to depict areal variability of streamflow and water-quality conditions nationwide on a year-by-year basis and (2) to detect and assess long-term changes in streamflow and stream quality.

Pesticide program is a network of regularly sampled water-quality stations where samples are collected to determine the concentration and distribution of pesticides in streams where potential contamination could result from the application of the commonly used insecticides and herbicides. Operation of the network is a Federal interagency activity.

Radiochemical program is a network of regularly sampled water-quality stations where samples are collected to be analyzed for radioisotopes. The streams that are sampled represent major drainage basins in the conterminous United States.

EXPLANATION OF STAGE AND WATER-DISCHARGE RECORDS

Collection and computation of data

The base data collected at gaging stations consist of records of stage and measurements of discharge of streams or canals, and stage, surface area, and contents of lakes or reservoirs. In addition, observations of factors affecting the stage-discharge relation or the stage-capacity relation, weather records, and other information are used to supplement base data in determining the daily flow or volume of water in storage. Records of stage are obtained from either direct readings on a nonrecording gage or from a water-stage recorder that gives either a continuous graph of the fluctuations or a tape punched at selected time intervals. Measurements of discharge are made with a current meter, using the general methods adopted by the Geological Survey on the basis of experience in stream gaging since 1888. These methods are described in standard textbooks, in Water-Supply Paper 888, and in Geological Survey Techniques of Water Resources Investigations, book 3, chapter A6.

For a stream-gaging station, rating tables giving the discharge for any stage are prepared from stage-discharge relation curves defined by discharge measurements. If extensions to the rating curves are necessary to define the extremes of discharge, they are made on the basis of indirect measurements of peak discharge (such as slope-area or contracted-opening measurements, computation of flow over dams or weirs), step-backwater techniques, velocity-area studies, and logarithmic plotting. The application of the daily mean gage heights to the rating table gives the daily mean discharge, from which the monthly and the yearly mean discharges are computed. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is determined by the shifting-control method, in which correction factors based on individual discharge measurements and notes by engineers and observers are used in applying the gage heights to the rating tables. If the stage-discharge relation for a station is temporarily changed by the presence of aquatic growth or debris on the control, the daily mean discharge is computed by what is basically the shifting-control method.

At some stream-gaging stations the stage-discharge relation is affected by ice in the winter, and it becomes impossible to compute the discharge in the usual manner. Discharge for periods of ice effect is computed on the basis of the gage-height record and occasional winter discharge measurements. Consideration is given to the available information on temperature and precipitation, notes by gage observers and hydrologists, and comparable records of discharge for other stations in the same or nearby basins.

For a lake or reservoir station, capacity tables giving the contents for any stage are prepared from stage-area relation curves defined by surveys. Discharge over spillways is computed from a stage-discharge relation curve defined by discharge measurements. The application of the stage to the capacity table gives the contents, from which the daily, monthly, or yearly change in contents is computed.

If the stage-capacity curve is subject to changes because of deposition of sediment in the reservoir periodic resurveys of the reservoir are necessary to define new stage-capacity curves. During the period between reservoir surveys the computed contents may be increasingly in error due to the gradual accumulation of sediment.

For some gaging stations there are periods when no gage-height record is obtained or the recorded gage height is so faulty that it cannot be used to compute daily discharge or contents. This happens when the recorder stops or otherwise fails to operate properly, intakes are plugged, the float is frozen in the well, or for various other reasons. For such periods the daily discharges are estimated on the basis of recorded range in stage, adjoining good record, discharge measurements, weather records, and comparison with other station records from the same or nearby basins. Likewise daily contents may be estimated on the basis of operator's log, adjoining good record, inflow-outflow studies, and other information.

The data in this report generally comprise a description of the station and tabulations of basic data. For gaging stations on streams or canals a table showing the daily discharge and monthly and yearly discharge is given. For gaging stations on lakes and reservoirs a monthly summary table of stage and contents or a table showing the daily contents is given. Records are published for the water year, which begins on October 1 and ends on September 30.

The description of the gaging station gives the location, drainage area, period of record, notations of revisions of previously published records, type and history of gages, general remarks, average discharge, and extremes of discharge or contents. The location of the gaging station and the drainage area are obtained from the most accurate maps available. River mileage, given under "LOCATION" for some stations, is that determined and used by the Corps of Engineers or other agencies. Periods for which there are published records for the present station or for stations generally equivalent to the present one are given under "PERIOD OF RECORD."

Previously published records of some stations have been found to be in error on the basis of data or information later obtained. Revisions of such records are usually published along with the current records in one of the annual or compilation reports. In order to make it easier to find such revised records, a paragraph headed "REVISED RECORDS" has been added to the description of all stations for which revised records have been published. Listed therein are all the reports in which revisions have been published, each followed by the water years for which figures are revised in that report. In listing the water years only one number is given; for instance, 1933 stands for the water year October 1, 1932, to September 30, 1933. If no daily, monthly, or annual figures of discharge were revised, that fact is brought out by the notations after the year dates as follows: "(M)" means that only the instantaneous maximum discharge was revised; "(m)" that only the instantaneous minimum was revised; and "(P)" that only peak discharges were revised. If the drainage area has been revised, the report in which the most recently revised figure was first published is given.

The type of gage currently in use; the datum of the present gage referred to National Geodetic Vertical Datum; and a condensed history of the types, locations, and datums of previous gages used during the period of record are given under "GAGE." National Geodetic Vertical Datum is explained in "DEFINITION OF TERMS" on page 4.

Information pertaining to the accuracy of the discharge records, to conditions that affect the natural flow at the gaging station, and to the availability of miscellaneous water quality records, is given under "REMARKS." For reservoir stations, information on the dam forming the reservoir, the capacity, outlet works and spillway, and purpose and use of the reservoir, is also given under "REMARKS."

The average discharge for the number of years indicated is given under "AVERAGE DISCHARGE"; it is not given for stations having fewer than 5 complete years of record or for stations where changes in water development during the period of record cause the figure to have little significance. In addition, the median of yearly mean discharges is given for stream-gaging stations having 10 or more complete years of record if the median differs from the average by more than 10 percent. Under "EXTREMES" are given first, the extremes for the period of record, second, information available outside the period of record, and last, those for the current year. Unless otherwise qualified, the maximum discharge (or contents) is the instantaneous maximum corresponding to the crest stage obtained by use of a water-stage recorder (graphic or digital), a crest-stage gage, or a nonrecording gage read at the time of the crest. If the maximum gage height did not occur on the same day as the maximum discharge (or contents), it is given separately. Similarly, the minimum is the instantaneous minimum unless otherwise qualified. For some stations peak discharges are listed with EXTREMES FOR THE CURRENT YEAR; if they are, all independent peaks, including the maximum for the year, above the selected base with the time of occurrence and corresponding gage heights are published in tabular format. The base discharge, which is given in the table heading, is selected so that an average of about three peaks a year will be presented. Peak discharges are not published for any canals, ditches, drains, or for any stream for which the peaks are subject to substantial control by man. Time of day is expressed in 24-hour local standard time; for example, 12:30 a.m. is 0030, 1:30 p.m. is 1330. The minimums for these stations are published in a separate paragraph following the table of peaks.

Skeleton capacity tables are published for all reservoirs for which records of contents are published on a daily basis.

The daily table for stream-gaging stations gives the mean discharge for each day and is followed by monthly and yearly summaries. In the monthly summary below the daily table, the line headed "TOTAL" gives the sum of the daily figures. The line headed "MEAN" gives the average flow in cubic feet per second during the month. The lines headed "MAX" and "MIN" give the maximum and minimum daily discharges, respectively, for the month. The line headed "AC-FT" gives the total discharge for the month expressed in acre-feet. In the yearly summary below the monthly summary, the figures shown are the appropriate daily discharges for the calendar and water years.

Footnotes to the table of daily discharge are introduced by the word "NOTE." Footnotes are used to indicate periods for which the discharge is computed or estimated by special methods because of no gage-height record, backwater from various sources, or other unusual conditions. Periods of no gage-height record are indicated if the period is continuous for a month or more or includes the maximum discharge for the year. Periods of backwater from an unusual source, of indefinite stage-relation, or of any other unusual condition at the gage site are indicated only if they are a month or more in length and the accuracy of the records is affected. Days on which the stage-discharge relation is affected by ice are not indicated. The methods used in computing discharge for various unusual conditions have been explained in preceding paragraphs.

For most gaging stations on lakes and reservoirs the data presented comprise a description of the station and a monthly summary table of stage and contents. For some reservoirs, a table showing daily contents or stage is given. A skeleton table of capacity at given stages is published for all reservoirs for which records are published on a daily basis, but is not published for reservoirs for which only monthly data are given.

Data collected at partial-record stations follow the information for continuous record sites. The tables of partial-record stations are followed by a listing of discharge measurements made at sites other than continuous-record or partial-record stations. Occasionally, a series of discharge measurements are made within a short time period to investigate the seepage gains or losses along a reach of a stream or to determine the low-flow characteristics of an area. Such measurements are also given in special tables following the tables of partial-record stations.

Accuracy of field data and computed results

The accuracy of streamflow data depends primarily on (1) the stability of the stage-discharge relation or, if the control is unstable, the frequency of discharge measurements and (2) the accuracy of observations of stage, measurements of discharge, and interpretation of records.

The station description under "REMARKS" states the degree of accuracy of the records. "Excellent" means that about 95 percent of the daily discharges is within 5 percent; "good" within 10 percent; and "fair" within 15 percent. "Poor" means that daily discharges have less than "fair" accuracy.

Figures of daily mean discharge in this report are shown to the nearest hundredth of a cubic foot per second for discharges of less than 1 ft^3/s; to tenths between 1.0 and 10 ft^3/s; to whole numbers between 10 and 1,000 ft^3/s; and to 3 significant figures above 1,000 ft^3/s. The number of significant figures used is based solely on the magnitude of the figure. The same rounding rules apply to discharge figures listed for partial-record stations and miscellaneous sites.

Discharge at many stations, as indicated by the monthly mean, may not reflect natural runoff due to the effects of diversion, consumption, regulation by storage, increase or decrease in evaporation due to artificial causes, or to other factors. For this reason, figures of cubic feet per second per square mile and of runoff in inches are not published. Evaporation from a reservoir is not included in the adjustments for changes in reservoir contents, unless it is so stated.

Other data available

Information of a more detailed nature than that published for most of the gaging stations such as observations of water temperatures, discharge measurements, gage-height records, and rating tables is on file in the Nebraska District office. Also most gaging-station records are available in computer-usable form and many statistical analyses have been made.

Information on the availability of unpublished data or statistical analyses may be obtained from the District office.

Records of discharge collected by agencies other than the Geological Survey

Records of daily diversions of water from streams by canals are collected by and published in Hydrographic Reports of the Nebraska Department of Water Resources. Also published therein are discharge records for Nebraska streams and storage records for Nebraska reservoirs which are not published in reports of the U.S. Geological Survey. Copies of the Hydrographic Reports may be obtained by addressing the Nebraska Department of Water Resources, 301 Centennial Mall, South, P.O. Box 94676, Lincoln, NE 68509.

Records of discharge not published by the Geological Survey were collected in Nebraska at three sites by Corps of Engineers, U.S. Army. The National Water Data Exchange (NAWDEX), Water Resources Division, U.S. Geological Survey, Reston, VA 22092, maintains an index of these sites. Information on records at specific sites can be obtained from that office upon request.

EXPLANATION OF WATER-QUALITY RECORDS

Collection and examination of data

Surface-water samples for analyses usually are collected at or near gaging stations. The quality-of-water records are given immediately following the discharge records at these stations.

The descriptive heading for water-quality records gives the period of record for all water-quality data; the period of daily record for parameters that are measured on a daily basis (specific conductance, pH, dissolved oxygen, water temperature, sediment discharge, etc.); extremes for the period of daily record; extremes for the current year; and general remarks.

For ground-water records, no descriptive statements are given; however, the well number, depth of well, date of sampling and/or other pertinent data are given in the table containing the chemical analyses of the ground water.

Water analysis

Most methods for collecting and analyzing water samples are described in the U.S. Geological Survey Techniques of Water-Resources Investigations listed on a following page.

One sample can define adequately the water quality at a given time if the mixture of solutes throughout the stream cross section is homogeneous. However, the concentration of solutes at different locations in the cross section may vary widely with different rates of water discharge, depending on the source of material and the turbulence and mixing of the stream. Some streams must be sampled through several vertical sections to obtain a representative sample needed for an accurate mean concentration and for use in calculating load.

Chemical-quality data published in this report are considered to be the most representative values available for the stations listed. The values reported represent water-quality conditions at the time of sampling as much as possible, consistent with available sampling techniques and methods of analysis. In the rare case where an apparent inconsistency exists between a reported pH value and the relative abundance of carbon dioxide species (carbonate and bicarbonate), the inconsistency is the result of a slight uptake of carbon dioxide from the air by the sample between measurement of pH in the field and determination of carbonate and bicarbonate in the laboratory.

For chemical-quality stations equipped with digital monitors, the records consist of daily, maximum, minimum, and mean values for each constituent measured and are based upon hourly punches beginning at 0100 hours and ending at 2400 hours for the day of record. More detailed records (hourly values) may be obtained from the District office.

Water temperature

Water temperatures are measured at most of the water-quality stations. In addition, water temperatures are taken at the time of discharge measurements for water-discharge stations. Conversions of degrees Celsius to degrees Fahrenheit are shown in table 3. For stations where water temperatures are measured manually once daily, the water temperatures are taken about the same time each day. For stations where thermographs are located, maximum and minimum daily temperatures are published. Large streams have a small daily temperature change; shallow streams may have a daily range of several degrees and may follow closely the changes in air temperature. Some streams may be affected by waste-heat discharges.

Sediment

Suspended-sediment concentrations are determined from samples collected by using depth-integrating samplers. Samples usually are obtained at several verticals in the cross section. When concentrations of suspended sediment are fairly uniform across a stream, observer samples taken at a fixed point are sufficient from which to determine mean concentrations for the cross section.

During periods when water discharge and sediment concentrations may be changing rapidly, samples may be collected more frequently than daily. Published mean daily sediment concentrations for these periods may be computed by the subdivided day method (time-discharge weighted average).

At some stations suspended-sediment samples are collected only periodically. Although data from periodic collections may represent conditions only at the time of observations, such data are useful in establishing seasonal relations between quality and streamflow in predicting long-term sediment-discharge characteristics of the stream.

In addition to the records of the quantities of suspended sediment, records of the periodic measurements of the particle-size distribution of the suspended sediment and bed material are included.

Parameter codes

In most of the column headings of this report the names of the constituents or properties for which data are given are followed by five-digit codes which appear in parentheses. These codes, called parameter codes, are identical to those introduced or approved by the U.S. Environmental Protection Agency and are widely used by federal and state agencies. The codes indicate, to one having a key, more precisely than the verbal column headings can the constituents or properties being reported. Data listed under a given code in this report should be comparable to those listed under the same code by other agencies.

EXPLANATION OF GROUND-WATER LEVEL RECORDS

Collection of the data

Only ground-water level data from a basic national network of observation wells are published herein. These water-level measurements are intended to provide a sampling and historical record of water-level changes in the nation's most important aquifers.

Each well is identified by means of (1) a 15-digit number that is based on the grid system of latitude and longitude as described under the section entitled "NUMBERING SYSTEM FOR WELLS AND MISCELLANEOUS SITES," and (2) a local number that is provided for continuity with older reports and for other use as dictated by local needs.

Measurements are made in many types of wells under varying conditions, but the methods of measurement are standardized to the extent possible. The equipment and measuring techniques used at each observation well ensure that measurements at each well are of consistent accuracy and reliability.

Water-level measurements in this report are given in feet with reference to land-surface datum (lsd). Land-surface datum is a datum plane that is approximately at land surface at each well. If known, the altitude of the land-surface datum is given in the well description. The height of the measuring point (MP) above or below land-surface datum is given in each well description. Water levels in wells equipped with recording gages are reported for every fifth day and the end of each month (eom).

Water levels are reported to as many significant figures as can be justified by the local conditions. For example, in a measurement of a depth to water of several hundred feet, the error of determining the absolute value of the total depth to water may be a few tenths of a foot, whereas the error in determining the net change of water level between successive measurements may be only a hundredth or a few hundredths of a foot. For lesser depths to water, the accuracy is greater. Accordingly, most measurements are reported to a hundredth of a foot, but some are given only to a tenth of a foot or a larger unit.

Table 1.--Factors for conversion of chemical constituents in milligrams per liter to milliequivalents per liter

Ion	Factor	Ion	Factor
Aluminum (Al^{+3})	0.11119	Iodide (I^{-1})	0.00788
Ammonia as NH_4^{+1}	.05544	Iron (Fe^{+3})	.05372
Barium (Ba^{+2})	.01456	Lead (Pb^{+2})	.00965
Bicarbonate (HCO_3^{-1})	.01639	Lithium (Li^{+1})	.14411
Bromide (Br^{-1})	.01251	Magnesium (Mg^{+2})	.08226
Calcium (Ca^{+2})	.04990	Manganese (Mn^{+2})	.03640
Carbonate (CO_3^{-2})	.03333	Nickel (Ni^{+2})	.03406
Chloride (Cl^{-1})	.02821	Nitrate (NO_3^{-1})	.01613
Chromium (Cr^{+6})	.11539	Nitrite (NO_2^{-1})	.02174
Cobalt (Co^{+2})	.03394	Phosphate (PO_4^{-3})	.03159
Copper (Cu^{+2})	.03148	Potassium (K^{+1})	.02557
Cyanide (CN^{-1})	.03844	Sodium (Na^{+1})	.04350
Fluoride (F^{-1})	.05264	Strontium (Sr^{+2})	.02283
Hydrogen (H^{+1})	.99209	Sulfate (SO_4^{-2})	.02082
Hydroxide (OH^{-1})	.05880	Zinc (Zn^{+2})	.03060

Note: For constituent reported in micrograms per liter, multiply by the factor and then divide result by 1,000.

Table 2.--Factors for conversion of sediment concentration in milligrams per liter to parts per million*
(All values calculated to three significant figures)

Range of concentration in 1000 mg/L	Divide by	Range of concentration in 1000 mg/L	Divide by	Range of concentration in 1000 mg/L	Divide by	Range of concentration in 1000 mg/L	Divide by
0 - 8	1.00	201-217	1.13	411-424	1.26	619-634	1.39
8.05- 24	1.01	218-232	1.14	427-440	1.27	636-650	1.40
24.2 - 40	1.02	234-248	1.15	443-457	1.28	652-666	1.41
40.5 - 56	1.03	250-264	1.16	460-473	1.29	668-682	1.42
56.5 - 72	1.04	266-280	1.17	476-489	1.30	684-698	1.43
72.5 - 88	1.05	282-297	1.18	492-506	1.31	700-715	1.44
99.5 -104	1.06	299-313	1.19	508-522	1.32	717-730	1.45
105 -120	1.07	315-329	1.20	524-538	1.33	732-747	1.46
121 -136	1.08	331-345	1.21	540-554	1.34	749-762	1.47
137 -152	1.09	347-361	1.22	556-570	1.35	765-780	1.48
153 -169	1.10	363-378	1.23	572-585	1.36	782-796	1.49
170 -185	1.11	380-393	1.24	587-602	1.37	798-810	1.50
186 -200	1.12	395-409	1.25	604-617	1.38		

*Based on water density of 1.00 g/ml and a specific gravity of sediment of 2.65.

Table 3.--Conversions of degrees Celsius (°C) to degrees Fahrenheit (°F).*
(Temperature reported to nearest 0.5°C.)

°C	°F	°C	°F	°C	°F	°C	°F	°C	°F
0.0	32	10.0	50	20.0	68	30.0	86	40.0	104
.5	33	10.5	51	20.5	69	30.5	87	40.5	105
1.0	34	11.0	52	21.0	70	31.0	88	41.0	106
1.5	35	11.5	53	21.5	71	31.5	89	41.5	107
2.0	36	12.0	54	22.0	72	32.0	90	42.0	108
2.5	36	12.5	54	22.5	72	32.5	90	42.5	108
3.0	37	13.0	55	23.0	73	33.0	91	43.0	109
3.5	38	13.5	56	23.5	74	33.5	92	43.5	110
4.0	39	14.0	57	24.0	75	34.0	93	44.0	111
4.5	40	14.5	58	24.5	76	34.5	94	44.5	112
5.0	41	15.0	59	25.0	77	35.0	95	45.0	113
5.5	42	15.5	60	25.5	78	35.5	96	45.5	114
6.0	43	16.0	61	26.0	79	36.0	97	46.0	115
6.5	44	16.5	62	26.5	80	36.5	98	46.5	116
7.0	45	17.0	63	27.0	81	37.0	99	47.0	117
7.5	45	17.5	63	27.5	81	37.5	99	47.5	117
8.0	46	18.0	64	28.0	82	38.0	100	48.0	118
8.5	47	18.5	65	28.5	83	38.5	101	48.5	119
9.0	48	19.0	66	29.0	84	39.0	102	49.0	120
9.5	49	19.5	67	29.5	85	39.5	103	49.5	121

*°C = 5/9 (°F - 32) or °F = 9/5 (°C) + 32.

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

Thirty-four manuals by the U.S. Geological Survey have been published to date in the series on techniques describing procedures for planning and executing specialized work in water-resources investigations. The material is grouped under major subject headings called books and is further divided into sections and chapters. For example, Section A of Book 3 (Applications of Hydraulics) is on surface water. The chapter, the unit of publication, is limited to a narrow field of subject matter. This format permits flexibility in revision and publication as the need arises. The reports listed below are for sale by the U.S. Geological Survey, Branch of Distribution, 1200 South Eads Street, Arlington, VA 22202 (authorized agent of the Superintendent of Documents, Government Printing Office).

NOTE: When ordering any of these publications, please give the title, book number, chapter number, and "U.S. Geological Survey Techniques of Water-Resources Investigations."

1-D1. *Water temperature-influential factors, field measurements, and data presentation,* by H. H. Stevens, Jr., J. F. Ficke, and G. F. Smoot: USGS--TWRI Book 1, Chapter D1, 65 pages.

1-D2. *Guidelines for collection and field analysis of ground-water samples for selected unstable constituents,* by W. W. Wood: USGS--TWRI Book 1, Chapter D2, 1976, 24 pages.

2-D1. *Application of surface geophysics to ground-water investigations,* by A. A. R. Zohdy, G. P. Eaton, and D. R. Mabey: USGS--TWRI Book 2, Chapter D1, 1974, 116 pages.

2-E1. *Application of borehole geophysics to water-resources investigations,* by W. S. Keys and L. M. MacCary: USGS--TWRI Book 2, Chapter E1, 1971, 126 pages.

3-A1. *General field and office procedures for indirect discharge measurements,* by M. A. Benson and Tate Dalrymple: USGS--TWRI Book 3, Chapter A1, 1967, 30 pages.

3-A2. *Measurement of peak discharge by the slope-area method,* by Tate Dalrymple and M. A. Benson: USGS--TWRI Book 3, Chapter A2, 1967, 12 pages.

3-A3. *Measurement of peak discharge at culverts by indirect methods,* by G. L. Bodhaine: USGS--TWRI Book 3, Chapter A3, 1968, 60 pages.

3-A4. *Measurement of peak discharge at width contractions by indirect methods,* by H. F. Matthai: USGS--TWRI Book 3, Chapter A4, 1967, 44 pages.

3-A5. *Measurement of peak discharge at dams by indirect methods,* by Harry Hulsing: USGS--TWRI Book 3, Chapter A5, 1967, 29 pages.

3-A6. *General procedure for gaging streams,* by R. W. Carter and Jacob Davidian: USGS--TWRI Book 3, Chapter A6, 1968, 13 pages.

3-A7. *Stage measurements at gaging stations*, by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A7, 1968, 28 pages.

3-A8. *Discharge measurements at gaging stations*, by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A8, 1969, 65 pages.

3-A11 *Measurement of discharge by moving-boat method*, by G. F. Smoot and C. E. Novak: USGS--TWRI Book 3, Chapter A11, 1969, 22 pages.

3-B1. *Aquifer-test design, observation, and data analysis*, by R. W. Stallman: USGS--TWRI Book 3, Chapter B1, 1971, 26 pages.

3-B2. *Introduction to ground-water hydraulics, a programed text for self-instruction*, by G. D. Bennett: USGS--TWRI Book 3, Chapter B2, 1976, 172 pages.

3-C1. *Fluvial sediment concepts*, by H. P. Guy: USGS--TWRI Book 3, Chapter C1, 1970, 55 pages.

3-C2. *Field methods for measurement of fluvial sediment*, by H. P. Guy and V. W. Norman: USGS--TWRI Book 3, Chapter C2, 1970, 59 pages.

3-C3. *Computation of fluvial-sediment discharge*, by George Porterfield: USGS--TWRI Book 3, Chapter C3, 1972, 66 pages.

4-A1. *Some statistical tools in hydrology*, by H. C. Riggs: USGS--TWRI Book 4, Chapter A1, 1968, 39 pages.

4-A2. *Frequency curves*, by H. C. Riggs: USGS--TWRI Book 4, Chapter A2, 1968, 15 pages.

4-B1. *Low-flow investigations*, by H. C. Riggs: USGS--TWRI Book 4, Chapter B1, 1972, 18 pages.

4-B2. *Storage analyses for water supply*, by H. C. Riggs and C. H. Hardison: USGS--TWRI Book 4, Chapter B2, 1973, 20 pages.

4-B3. *Regional analyses of streamflow characteristics*, by H. C. Riggs: USGS--TWRI Book 4, Chapter B3, 1973, 15 pages.

4-D1. *Computation of rate and volume of stream depletion by wells*, by C. T. Jenkins: USGS--TWRI Book 4, Chapter D1, 1970, 17 pages.

5-A1. *Methods for determination of inorganic substances in water and fluvial sediments*, by M. W. Skougstad and others, editors: USGS--TWRI Book 5, Chapter A1, 1979, 626 pages.

5-A2. *Determination of minor elements in water by emission spectroscopy*, by P. R. Barnett and E. C. Mallory, Jr.: USGS--TWRI Book 5, Chapter A2, 1971, 31 pages.

5-A3. *Methods for analysis of organic substances in water*, by D. F. Goerlitz and Eugene Brown: USGS--TWRI Book 5, Chapter A3, 1972, 40 pages.

5-A4. *Methods for collection and analysis of aquatic biological and microbiological samples*, edited by P. E. Greeson, T. A. Ehlke, G. A. Irwin, B. W. Lium, and K. V. Slack: USGS--TWRI Book 5, Chapter A4, 1977, 332 pages.

5-A5. *Methods for determination of radioactive substances in water and fluvial sediments*, by L. L. Thatcher, V. J. Janzer, and K. W. Edwards: USGS--TWRI Book 5, Chapter A5, 1977, 95 pages.

5-C1. *Laboratory theory and methods for sediment analysis*, H. P. Guy: USGS--TWRI Book 5, Chapter C1, 1969, 58 pages.

7-C1. *Finite difference model for aquifer simulation in two dimensions with results of numerical experiments*, by P. C. Trescott, G. F. Pinder, and S. P. Larson: USGS--TWRI Book 7, Chapter C1, 1976, 116 pages.

7-C2. *Computer model of two-dimensional solute transport and dispersion in ground water*, by L. F. Konikow and J. D. Bredehoeft: USGS--TWRI Book 7, Chapter C2, 1978, 90 pages.

8-A1. *Methods of measuring water levels in deep wells*, by M. S. Garber and F. C. Koopman: USGS--TWRI Book 8, Chapter A1, 1968, 23 pages.

8-B2. *Calibration and maintenance of vertical-axis type current meters*, by G. F. Smoot and C. E. Novak: USGS--TWRI Book 8, Chapter B2, 1968, 15 pages.

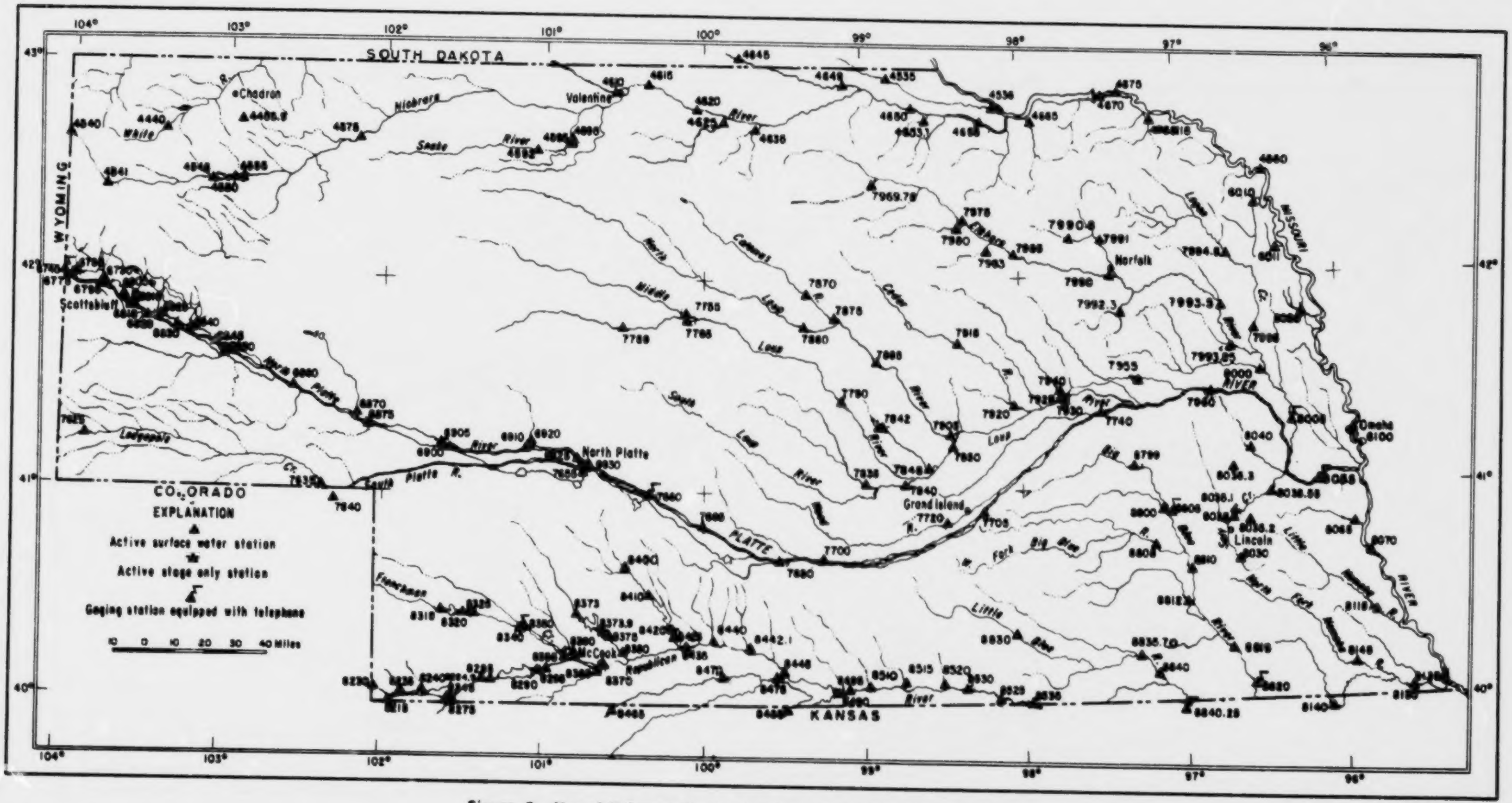
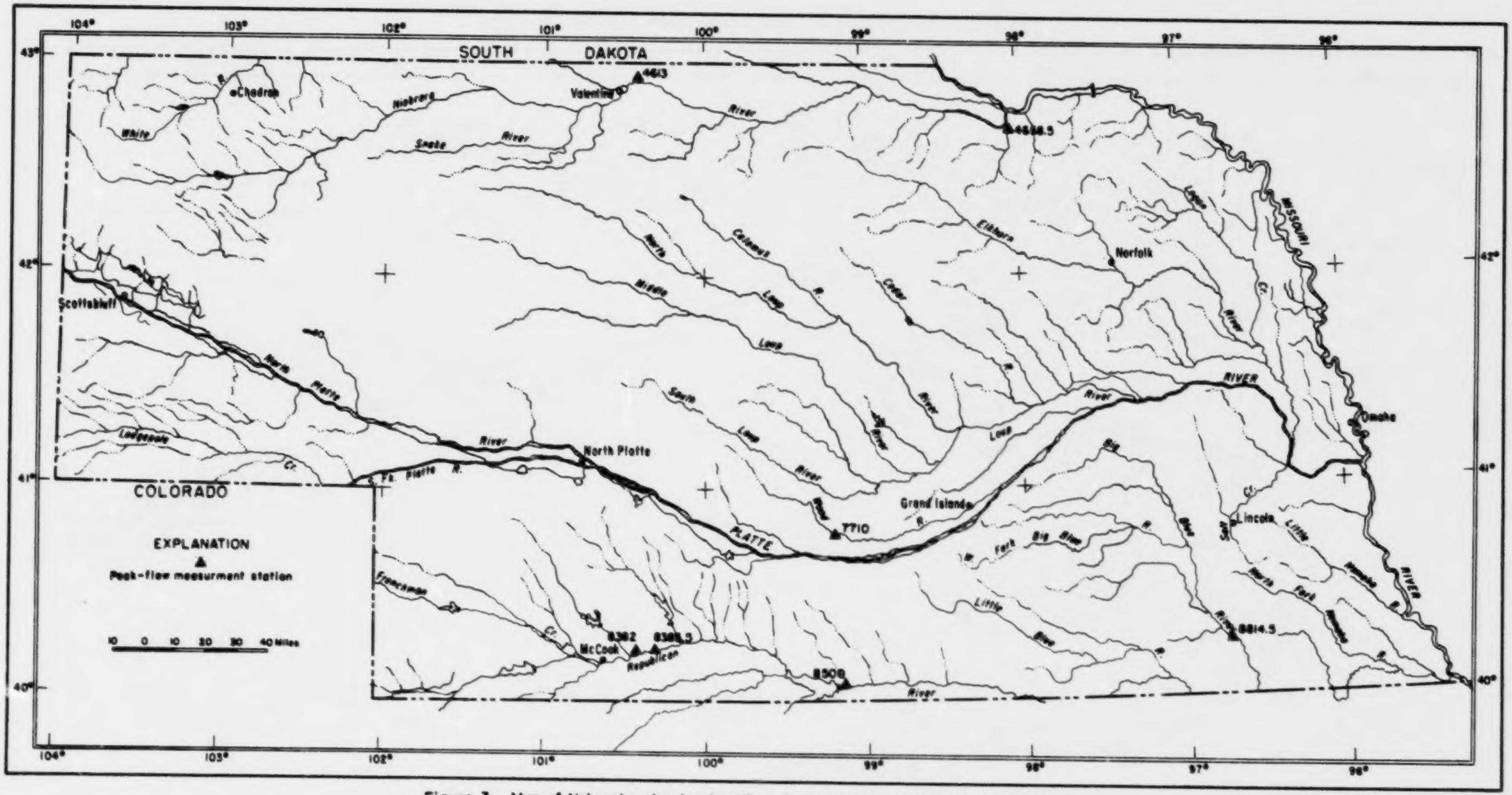

SOUTH DAKOTA
WYOMING
COLORADO
KANSAS
Chadron
Valentine
Scottsbluff
North Platte
Grand Island
Norfolk
Lincoln
Omaha
McCook
Niobrara
Snake River
White
Platte River
North Platte
South Platte R.
Lodgepole Cr.
Calamus
Cedar River
Elkhorn
North Loup
Middle Loup
Loup River
South Loup River
Wood
Big Blue River
Little Blue River
West Fork Big Blue
Little Nemaha
Nemaha R.
Frenchman
Republican River
Salt Cr.
MISSOURI RIVER
104°
103°
102°
101°
100°
99°
98°
97°
96°
43°
42°
41°
40°
EXPLANATION
Active surface water station
Active stage only station
Gaging station equipped with telephone
10 0 10 20 30 40 Miles

Figure 2.--Map of Nebraska showing location of complete-record stations.


104°
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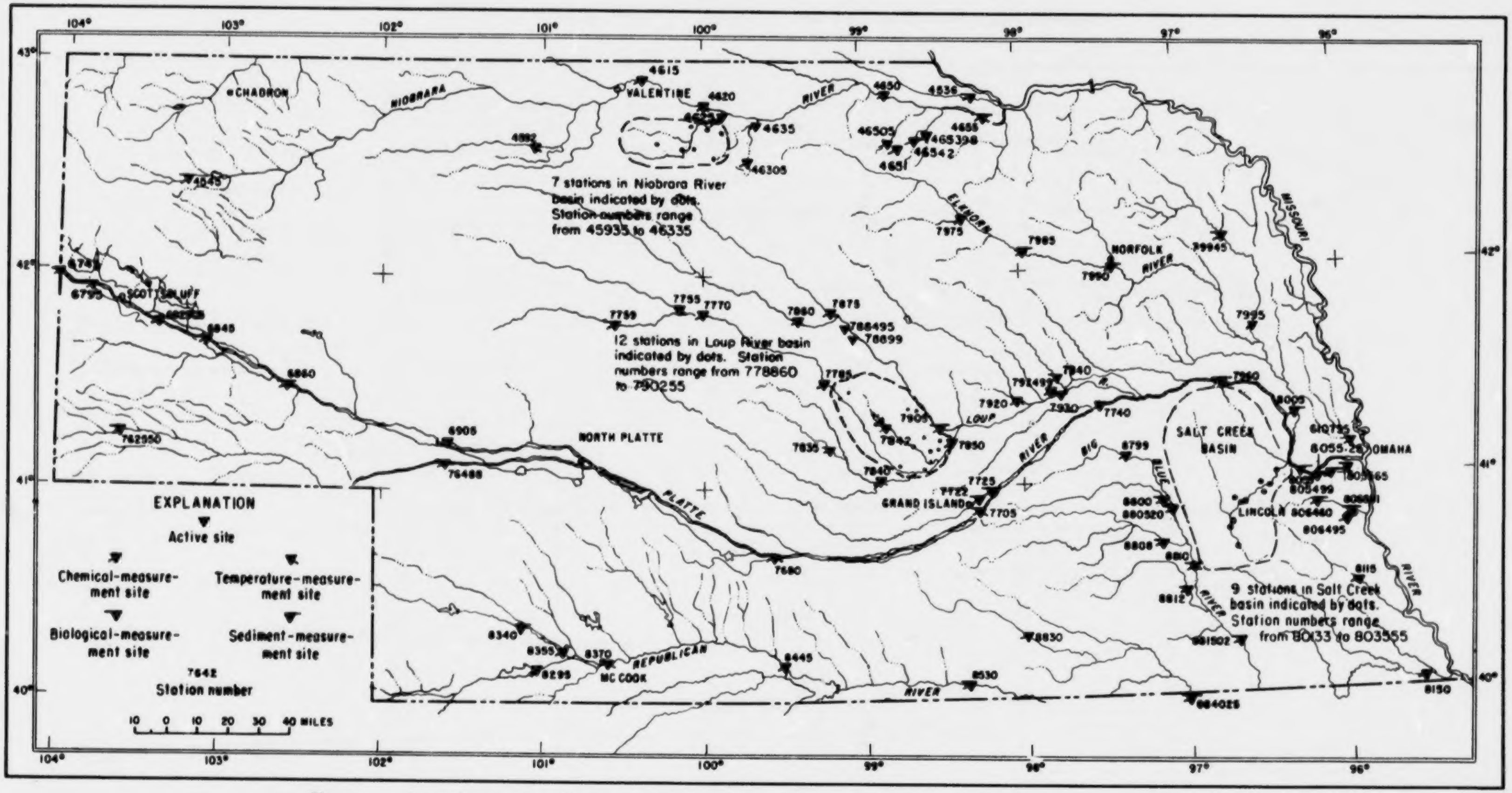
41°
40°
SOUTH DAKOTA
COLORADO
Chadron
White
Niobrara
Snake River
Valentine
4613
River
Scottsbluff
North Platte
River
North Platte
Fk. Platte R.
Lodgepole
Cr.
North
Middle
Loup
Calamus R.
Cedar
River
South Loup
River
Wood
7710
Loup River
Grand Island
PLATTE
RIVER
Elkhorn
Norfolk
Logan
River
Cr.
MISSOURI
Omaha
Lincoln
Salt Cr.
Little Nemaha
North Fork Nemaha
R.
RIVER
Big Blue R.
W. Fork Big Blue
Little Blue
6814.5
Frenchman
Cr.
McCook
8382
Republican
8500
River
EXPLANATION
▲
Peak-flow measurment station
10 0 10 20 30 40 Miles

Figure 3.--Map of Nebraska showing location of crest-stage partial-record stations.


104°
103°
102°
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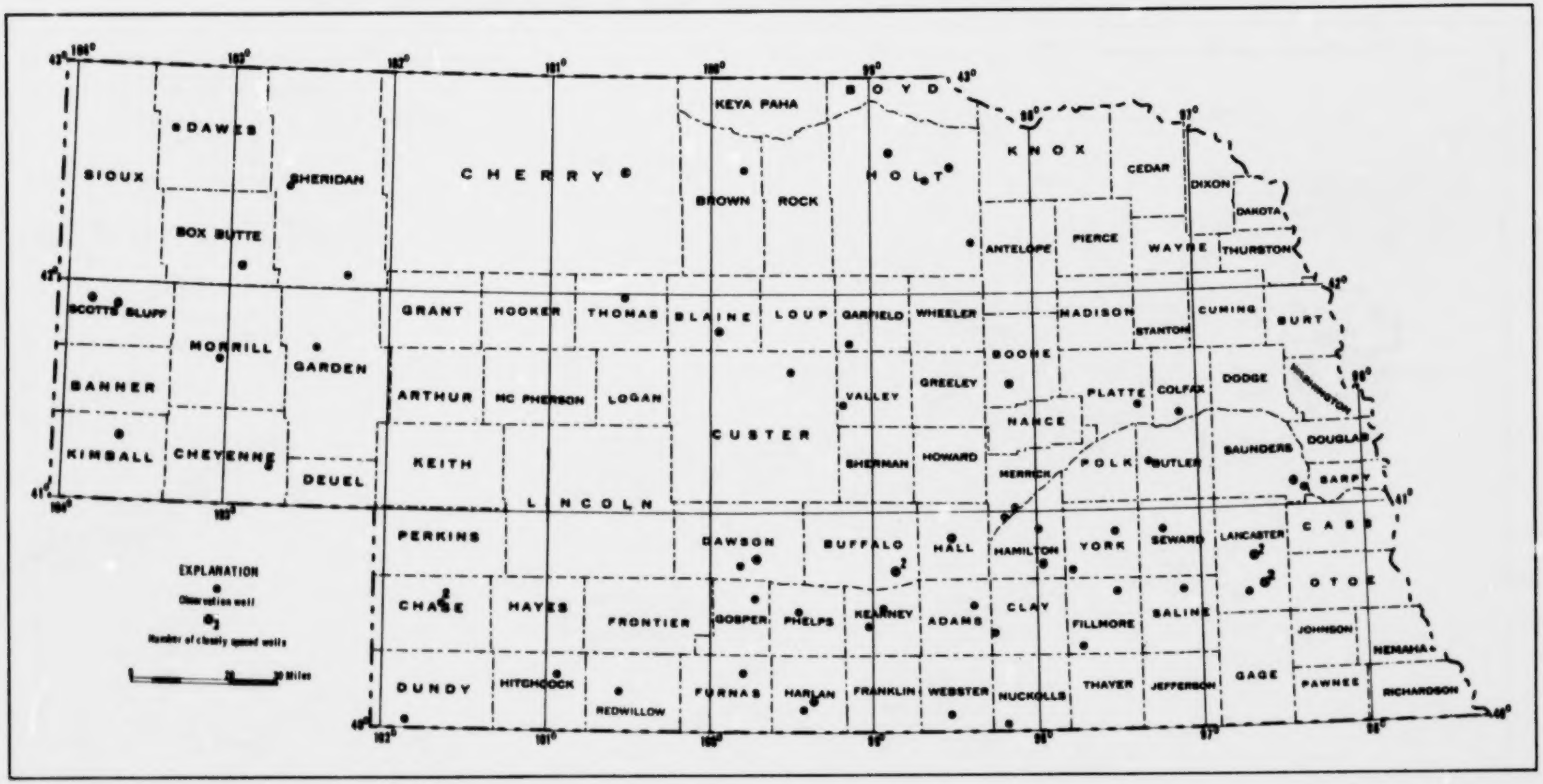
97°
96°
43°
42°
41°
40°
CHADRON
NIOBRARA
RIVER
VALENTINE
4615
4620
4635
46305
4650
4536
4655
465398
46542
46505
4651
4592
4545
7 stations in Niobrara River basin indicated by dots. Station numbers range from 45935 to 46335
ELKHORN
7975
7985
NORFOLK
RIVER
7990
79945
MISSOURI
7995
6745
6795
SCOTTSBLUFF
6845
6860
762950
6905
76488
NORTH PLATTE
PLATTE
7759
7755
7770
7860
7875
788495
78899
12 stations in Loup River basin indicated by dots. Station numbers range from 778860 to 790255
7785
7835
7842
7905
7850
7840
LOUP
7920
792499
7940
7930
7740
RIVER
7725
7722
GRAND ISLAND
7705
7680
7960
8005
610735
8055.28
OMAHA
SALT CREEK BASIN
805499
LINCOLN
806440
806495
BIG
BLUE
RIVER
6799
8800
880520
8808
8810
8812
881502
8115
9 stations in Salt Creek basin indicated by dots. Station numbers range from 80133 to 803555
RIVER
8150
884025
8530
8830
8445
RIVER
REPUBLICAN
MC COOK
8370
8355
8295
8340
EXPLANATION
Active site
Chemical-measurement site
Temperature-measurement site
Biological-measurement site
Sediment-measurement site
7642
Station number
10 0 10 20 30 40 MILES

Figure 4.--Map showing locations of surface water-quality stations in Nebraska.


104°
103°
102°
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98°
97°
96°
43°
42°
41°
40°
SIOUX
DAWES
BOX BUTTE
SHERIDAN
CHERRY
KEYA PAHA
BROWN
ROCK
BOYD
HOLT
KNOX
CEDAR
DIXON
DAKOTA
ANTELOPE
PIERCE
WAYNE
THURSTON
SCOTTS BLUFF
MORRILL
GARDEN
GRANT
HOOKER
THOMAS
BLAINE
LOUP
GARFIELD
WHEELER
MADISON
STANTON
CUMING
BURT
BANNER
ARTHUR
MC PHERSON
LOGAN
VALLEY
GREELEY
BOONE
PLATTE
COLFAX
DODGE
WASHINGTON
KIMBALL
CHEYENNE
DEUEL
KEITH
CUSTER
SHERMAN
HOWARD
NANCE
MERRICK
POLK
BUTLER
SAUNDERS
DOUGLAS
SARPY
LINCOLN
PERKINS
DAWSON
BUFFALO
HALL
HAMILTON
YORK
SEWARD
LANCASTER
CASS
CHASE
HAYES
FRONTIER
GOSPER
PHELPS
KEARNEY
ADAMS
CLAY
FILLMORE
SALINE
OTOE
JOHNSON
NEMAHA
DUNDY
HITCHCOCK
REDWILLOW
FURNAS
HARLAN
FRANKLIN
WEBSTER
NUCKOLLS
THAYER
JEFFERSON
GAGE
PAWNEE
RICHARDSON
2
EXPLANATION
Observation well
Number of closely spaced wells
0
20
30 Miles

Figure 5.-- Map showing locations of selected observation wells.

WHITE RIVER BASIN

06444000 WHITE RIVER AT CRAWFORD, NE

LOCATION.--Lat 42°41'33", long 103°25'03", in W1/2 sec.3, T.31 N., R.52 W., Dawes County, Hydrologic Unit 10140201, on right bank 15 ft (5 m) downstream from bridge in city park at Crawford.

DRAINAGE AREA.--313 mi² (811 km²).

PERIOD OF RECORD.--February 1931 to September 1943, October 1947 to current year.

REVISED RECORDS.--WSP 1309: 1931(M), 1942(M). WSP 1729: 1958-59(M). WSP 1917: 1958-59.

GAGE.--Water-stage recorder. Datum of gage is 3,659.85 ft (1,115.522 m) National Geodetic Vertical Datum of 1929. Feb. 25, 1931, to Oct. 2, 1933, nonrecording gage at old highway bridge 0.5 mi (0.8 km) upstream at different datum and Oct. 3, 1933, to Sept. 30, 1943, 1 mi (2 km) upstream at different datum.

REMARKS.--Records good except those for winter period, which are fair. Some regulation at low flows by pumps for irrigation and diversion for water supply for town of Crawford.

AVERAGE DISCHARGE.--44 years, 20.2 ft³/s (0.572 m³/s), 14,630 acre-ft/yr (18.0 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,580 ft³/s (44.7 m³/s) Mar. 15, 1948, gage height, 6.88 ft (2.097 m); maximum gage height, 7.7 ft (2.35 m) July 10, 1958, from floodmarks; minimum daily discharge, 2.7 ft³/s (0.076 m³/s) Aug. 13, 31, Sept. 1, 1960.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 100 ft³/s (2.83 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
July 21	0500	387	11.0	4.48	1.366
July 24	1715	*513	14.5	5.27	1.606

Minimum daily, 11.0 ft³/s (0.31 m³/s) Aug. 5-7, Sept. 6-10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	17	18	16	25	25	22	19	19	13	14	13
2	14	18	18	16	25	24	21	20	19	13	14	13
3	14	18	18	17	24	23	22	20	18	13	13	12
4	14	18	18	18	23	23	24	21	17	13	12	12
5	14	18	18	19	23	23	24	20	17	15	11	12
6	15	18	18	20	23	25	24	20	16	14	11	11
7	15	18	18	24	23	25	23	20	18	14	11	11
8	15	18	18	26	22	26	23	21	18	14	12	11
9	15	18	18	28	21	24	22	23	20	13	18	11
10	15	18	18	26	20	22	22	23	19	12	16	11
11	15	18	18	26	20	21	24	24	19	12	15	12
12	15	18	18	22	21	22	25	24	17	12	14	13
13	15	18	18	22	19	21	23	22	16	12	14	13
14	15	18	18	26	21	21	23	21	15	13	14	14
15	16	18	18	31	20	21	22	21	15	13	15	13
16	16	18	18	33	20	20	22	21	19	13	15	13
17	15	18	18	34	20	21	21	20	18	14	14	12
18	16	18	20	34	21	21	22	20	18	14	16	12
19	16	18	22	34	20	21	21	20	19	14	19	12
20	16	18	22	34	21	20	21	19	17	13	18	12
21	16	19	21	34	21	22	20	19	16	94	16	13
22	17	18	20	34	20	23	20	17	16	31	15	13
23	18	19	20	34	20	22	20	16	29	24	15	12
24	17	18	20	33	22	22	21	16	18	94	15	13
25	18	18	20	32	23	22	21	16	16	26	16	13
26	18	18	19	31	24	21	20	16	14	20	15	13
27	17	18	17	30	25	21	21	15	14	19	15	13
28	17	18	16	28	24	21	21	16	16	19	14	13
29	17	18	16	26	---	21	21	18	14	17	14	13
30	17	19	16	26	---	22	21	19	13	15	14	13
31	17	---	16	26	---	22	---	19	---	16	13	---
TOTAL	489	542	571	840	611	688	657	606	520	639	448	372
MEAN	15.8	18.1	18.4	27.1	21.8	22.2	21.9	19.5	17.3	20.6	14.5	12.4
MAX	18	19	22	34	25	26	25	24	29	94	19	14
MIN	14	17	16	16	19	20	20	15	13	12	11	11
AC-FT	970	1080	1130	1670	1210	1360	1300	1200	1030	1270	889	738

CAL YR 1978 TOTAL 7397 MEAN 20.3 MAX 93 MIN 10 AC-FT 14670
WTR YR 1979 TOTAL 6983 MEAN 19.1 MAX 94 MIN 11 AC-FT 13850

06445590 BIG BORDEAUX CREEK NEAR CHADRON, NE

LOCATION.--Lat 42°43'30", long 102°55'44", in NW1/4NW1/4 sec.26, T.32 N., R.48 W., Dawes County, Hydrologic Unit 10140201, Nebraska National Forest-Pine Ridge Division, on right bank 4.2 mi (6.8 km) northeast of Chadron State Park headquarters and 8 mi (13 km) southeast of Chadron.

DRAINAGE AREA.--9.42 mi² (24.40 km²).

PERIOD OF RECORD.--June 1968 to September 1979 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 3,800 ft (1,160 m), from topographic map.

REMARKS.--Records good, except those for winter period, which are poor.

AVERAGE DISCHARGE.--11 years, 0.56 ft³/s (0.0158 m³/s), 406 acre-ft/yr (0.501 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,670 ft³/s (161 m³/s) May 6, 1977, gage height, 12.0 ft (3.66 m), from rating curve extended above 43 ft³/s (1.22 m³/s) on basis of slope-area measurement of peak flow; no flow Dec. 10-16, 1972, Jan. 6-12, 1973, Mar. 28, 1975, Jan. 12-22, Jan. 29 to Feb. 10, 1977, Mar. 2-8, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 20 ft³/s (0.57 m³/s) July 24, time unknown, gage height, 2.51 ft (0.765 m), from floodmark, no other peak above base of 2.0 ft³/s (0.057 m³/s); gage height of 2.51 ft (0.765 m) may have been exceeded by backwater from ice during period of no gage-height record; minimum daily discharge, 0.10 ft³/s (0.003 m³/s) Dec. 31-Jan. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.22	.37	.38	.10	.18	.47	.54	.53	.52	.27	.30	.44
2	.24	.37	.38	.10	.18	.47	.55	.52	.48	.27	.27	.44
3	.24	.37	.38	.10	.20	.47	.56	.52	.48	.27	.24	.44
4	.24	.37	.36	.10	.20	.47	.57	.52	.48	.27	.24	.43
5	.24	.37	.32	.11	.23	.47	.58	.52	.48	.27	.24	.40
6	.24	.37	.30	.11	.26	.47	.59	.52	.44	.27	.24	.40
7	.24	.38	.28	.12	.29	.47	.59	.52	.44	.27	.22	.40
8	.24	.40	.28	.12	.32	.47	.59	.58	.44	.24	.27	.40
9	.24	.40	.26	.13	.35	.47	.59	.60	.48	.24	.39	.40
10	.24	.40	.26	.13	.38	.47	.59	.56	.48	.24	.27	.41
11	.24	.40	.24	.14	.41	.48	.58	.59	.44	.22	.27	.40
12	.24	.40	.24	.15	.44	.48	.58	.62	.44	.22	.27	.40
13	.24	.40	.22	.15	.47	.48	.58	.60	.40	.22	.27	.37
14	.27	.40	.22	.16	.47	.48	.58	.58	.37	.22	.27	.37
15	.27	.40	.22	.19	.40	.48	.58	.56	.37	.22	.27	.37
16	.29	.40	.22	.24	.40	.49	.57	.56	.40	.22	.30	.37
17	.30	.40	.22	.28	.42	.49	.57	.56	.40	.22	.30	.33
18	.30	.40	.22	.32	.42	.49	.57	.59	.40	.39	1.0	.33
19	.30	.40	.24	.32	.44	.49	.57	.60	.44	.33	.96	.32
20	.33	.40	.26	.32	.46	.49	.57	.60	.40	.27	.92	.31
21	.33	.40	.30	.36	.46	.49	.57	.60	.40	.27	.76	.30
22	.36	.42	.32	.38	.46	.49	.58	.60	.40	.24	.69	.29
23	.39	.37	.32	.36	.47	.49	.58	.60	.40	.22	.64	.28
24	.40	.37	.30	.30	.47	.49	.58	.55	.37	1.7	.63	.27
25	.40	.37	.30	.26	.47	.50	.59	.52	.37	.37	.60	.27
26	.40	.37	.26	.20	.47	.50	.60	.52	.37	.36	.60	.27
27	.40	.36	.24	.20	.47	.50	.60	.52	.37	.35	.59	.27
28	.40	.35	.20	.20	.47	.50	.60	.53	.33	.34	.56	.27
29	.40	.37	.18	.18	---	.51	.60	.56	.33	.33	.56	.27
30	.40	.38	.12	.18	---	.52	.59	.55	.27	.33	.54	.27
31	.37	---	.10	.18	---	.53	---	.52	---	.33	.51	---
TOTAL	9.41	11.56	8.16	6.19	10.66	15.07	17.39	17.32	12.39	9.98	14.19	10.49
MEAN	.30	.39	.26	.20	.38	.49	.58	.56	.41	.32	.46	.35
MAX	.40	.42	.38	.36	.47	.53	.60	.62	.52	1.7	1.0	.44
MIN	.22	.35	.10	.10	.18	.47	.54	.52	.27	.22	.22	.27
AC-FT	19	23	16	12	21	30	34	34	25	20	28	21

CAL YR 1978 TOTAL 146.40 MEAN .40 MAX 3.0 MIN .00 AC-FT 290
WTR YR 1979 TOTAL 142.81 MEAN .39 MAX 1.7 MIN .10 AC-FT 283

06453500 PONCA CREEK AT ANOKA, NE

LOCATION (REVISED).--Lat 42°56'38", long 98°50'25", in NE1/4 sec.9, T.34 N., R.13 W., Boyd County, Hydrologic Unit 10150001, on downstream side of left pier of bridge on State Highway 11, 0.5 mi (0.8 km) southwest of Anoka and 0.5 mi (0.8 km) upstream from Dry Creek.

DRAINAGE AREA.--505 mi^2 (1,308 km^2).

PERIOD OF RECORD.--March 1949 to current year.

REVISED RECORDS.--WSP 2117: Drainage area.

GAGE.--Water-stage recorder for stages above 0.4 ft (0.12 m) and nonrecording gage read once daily. Altitude of gage is 1,630 ft (497 m), from topographic map. Prior to Sept. 13, 1950, nonrecording gage at same site and datum.

REMARKS.--Records good except those for winter period, which are poor.

AVERAGE DISCHARGE.--30 years, 46.3 ft^3/s (1.311 m^3/s), 33,540 acre-ft/yr (41.4 hm^3/yr); median of yearly mean discharges, 31 ft^3/s (0.878 m^3/s), 22,500 acre-ft/yr (27.7 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,810 ft^3/s (278 m^3/s) Mar. 27, 1960, gage height, 16.86 ft (5.139 m); no flow at times in 1949-50, 1955-62, 1965-71, 1974-76, 1978, 1979.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 294 ft^3/s (8.33 m^3/s) Mar. 19, gage height, 3.93 ft (1.198 m), no peak above base of 500 ft^3/s (14.2 m^3/s); no flow Jan. 13-19, Feb. 15-18, Sept. 2-10, 18-30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.41	1.6	1.7	.10	.10	.60	30	21	14	5.3	1.1	.02
2	.34	1.4	1.5	.10	.10	.70	30	20	12	4.5	.08	.00
3	.34	1.6	1.3	.10	.10	.80	29	19	10	3.8	.35	.00
4	.41	1.6	1.6	.10	.10	1.0	29	18	9.5	4.2	.35	.00
5	.55	1.6	2.0	.10	.10	1.5	30	17	8.7	3.2	.25	.00
6	.55	1.4	1.8	.10	.10	2.0	29	18	12	3.4	.06	.00
7	.69	1.6	1.5	.10	.10	15	27	17	30	3.8	.06	.00
8	.83	1.4	1.6	.10	.10	60	24	19	21	3.4	.15	.00
9	.90	1.4	1.7	.10	.10	90	24	36	21	3.8	.06	.00
10	1.1	1.4	1.8	.10	.10	100	24	52	19	3.2	.04	.00
11	1.3	1.4	1.6	.10	.10	94	31	49	19	2.4	.05	.06
12	1.6	1.6	1.4	.10	.10	84	84	41	16	1.9	.03	4.5
13	1.7	1.4	1.3	.00	.10	92	79	33	12	1.6	.05	2.9
14	1.7	1.3	1.5	.00	.10	88	53	27	8.7	1.9	.08	1.1
15	1.6	1.3	1.7	.00	.00	70	38	24	7.2	2.4	.06	.15
16	1.6	1.5	1.6	.00	.00	68	36	23	9.1	2.1	.08	.04
17	1.4	1.7	1.5	.00	.00	81	33	21	9.9	2.4	.15	.01
18	1.2	1.5	1.5	.00	.00	107	29	20	12	1.9	.06	.00
19	1.1	1.3	1.4	.00	.10	125	31	19	9.1	1.9	1.1	.00
20	1.4	1.2	1.4	.10	.10	74	26	17	9.5	2.6	.68	.00
21	1.1	1.4	1.5	.10	.10	69	29	16	8.7	1.4	.25	.00
22	1.1	1.5	1.5	.10	.10	128	30	15	8.7	4.2	.25	.00
23	1.1	1.7	1.4	.10	.10	126	34	13	8.0	7.2	.25	.00
24	1.1	1.8	1.3	.10	.10	62	35	14	7.6	6.4	.04	.00
25	1.1	1.8	1.4	.10	.20	52	29	13	6.4	3.8	.03	.00
26	1.4	1.6	1.5	.10	.30	43	26	12	5.7	2.9	.03	.00
27	1.4	1.5	1.6	.10	.40	36	25	12	5.3	4.2	.01	.00
28	1.4	1.4	1.6	.10	.40	35	23	12	4.2	3.2	.06	.00
29	1.1	1.7	.80	.10	---	33	22	12	3.4	2.6	.06	.00
30	1.4	2.0	.40	.10	---	32	20	14	2.9	1.6	.02	.00
31	1.6	---	.10	.10	---	28	---	14	---	1.6	.02	---
TOTAL	34.52	45.6	44.50	2.40	3.30	1798.60	989	656	330.6	98.8	6.46	8.78
MEAN	1.11	1.52	1.44	.077	.12	58.0	33.0	21.2	11.0	3.19	.21	.29
MAX	1.7	2.0	2.0	.10	.40	128	84	52	30	7.2	1.1	4.5
MIN	.34	1.2	.10	.00	.00	.60	20	12	2.9	1.4	.01	.00
AC-FT	68	90	88	4.8	6.5	3570	1960	1310	656	196	13	17

CAL YR 1978 TOTAL 25768.45 MEAN 70.6 MAX 3260 MIN .00 AC-FT 51110
WTR YR 1979 TOTAL 4020.56 MEAN 11.0 MAX 128 MIN .00 AC-FT 7970

PONCA CREEK BASIN

06453600 PONCA CREEK AT VERDEL, NE

LOCATION.--Lat 42°48'40", long 98°10'35", in NE1/4NE1/4 sec.30, T.33 N., R.7 W., Knox County, Hydrologic Unit 10150001, near left bank at left downstream end of bridge on State Highway 12, 0.6 mi (1.0 km) east of Verdel and 3.1 mi (5.0 km) upstream from mouth.

DRAINAGE AREA.--812 mi² (2,103 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1957 to current year.

REVISED RECORDS.--WSP 2117: Drainage area.

GAGE.--Water-stage recorder and nonrecording gage read once daily. Datum of gage is 1,232.9 ft (375.79 m) National Geodetic Vertical Datum of 1929 (Nebraska Department of Highways reference marks). See WSP 1917 for history of changes prior to Nov. 15, 1962.

REMARKS.--Records good except those for winter period, which are poor.

AVERAGE DISCHARGE.--22 years, 73.2 ft³/s (2.073 m³/s), 53,030 acre-ft/yr (65.4 hm³/yr); median of yearly mean discharges, 54 ft³/s (1.529 m³/s), 39,100 acre-ft/yr (48.2 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,700 ft³/s (445 m³/s) Mar. 27, 1960, gage height, 15.10 ft (4.602 m), site and datum then in use; no flow for many days in 1957-60, 1965-72, 1974-77, 1979.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 400 ft³/s (11.3 m³/s) Mar. 17, gage height, 3.54 ft (1.079 m) from graph based on observers readings, no peak above base of 800 ft³/s (22.7 m³/s); maximum gage height, 5.48 ft (1.670 m) Feb. 22, backwater from ice; no flow Jan. 14-19, Sept. 4-11, 27-30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.2	6.8	7.4	.20	.30	1.5	77	56	35	13	5.7	.10
2	3.0	7.1	6.6	.20	.30	1.5	83	66	30	13	4.6	.05
3	3.4	7.4	6.0	.20	.40	1.5	78	59	29	14	3.8	.20
4	3.8	7.2	6.4	.20	.40	1.6	75	54	27	12	3.0	.00
5	3.5	8.0	6.6	.20	.50	2.5	72	52	25	11	2.6	.00
6	3.7	7.3	6.2	.20	.50	4.0	64	51	25	10	1.6	.00
7	4.1	7.0	5.8	.20	.50	20	61	51	33	11	.89	.00
8	4.3	7.8	5.6	.20	.50	80	63	55	58	12	.50	.00
9	4.3	8.4	6.0	.20	.50	150	62	66	61	11	.71	.00
10	4.6	8.7	6.4	.20	.70	240	56	113	58	9.7	.50	.00
11	4.6	8.6	6.6	.20	.80	300	71	117	55	8.7	.24	.00
12	4.8	9.0	6.0	.20	.80	280	134	104	60	7.5	.40	7.6
13	5.1	11	5.8	.10	.80	260	172	89	40	6.7	.40	15
14	5.6	8.5	6.0	.00	.80	250	140	77	31	6.4	1.1	9.3
15	5.6	8.2	6.2	.00	.80	280	104	68	23	6.7	1.2	5.7
16	5.6	10	6.0	.00	.80	380	85	62	20	7.2	1.8	4.0
17	5.6	14	5.8	.00	1.0	351	76	56	23	9.5	2.0	2.2
18	5.9	9.9	6.0	.00	1.1	316	74	51	25	8.7	2.0	2.0
19	5.6	8.0	5.8	.00	1.2	301	71	52	25	7.1	5.1	1.4
20	5.6	6.0	5.6	.20	1.2	226	78	52	27	6.3	5.7	.30
21	5.9	6.4	5.8	.30	1.2	171	103	47	23	5.8	4.0	.15
22	5.9	7.0	6.2	.30	1.2	188	80	44	21	7.1	3.0	.10
23	5.9	7.6	5.6	.30	1.1	230	75	39	23	5.3	2.6	.10
24	5.6	8.0	5.2	.30	1.1	199	72	36	21	8.9	1.8	.10
25	6.5	8.4	5.4	.30	1.1	152	75	35	19	11	.60	.10
26	7.0	8.0	5.4	.30	1.3	127	66	35	17	9.0	.70	.05
27	7.2	7.0	5.8	.30	1.3	99	62	34	20	8.7	.29	.00
28	7.1	6.4	6.4	.30	1.4	89	59	33	17	9.6	1.8	.00
29	7.1	7.0	3.0	.30	---	81	58	31	14	9.9	2.0	.00
30	7.1	7.8	1.0	.30	---	77	54	37	13	9.3	.70	.00
31	6.9	---	.40	.30	---	75	---	39	---	6.7	.28	---
TOTAL	164.1	242.5	173.00	6.00	23.60	4934.6	2400	1761	898	282.8	61.61	48.45
MEAN	5.29	8.08	5.58	.19	.84	159	80.0	56.8	29.9	9.12	1.99	1.62
MAX	7.2	14	7.4	.30	1.4	380	172	117	61	14	5.7	15
MIN	3.0	6.0	.40	.00	.30	1.5	54	31	13	5.3	.24	.00
AC-FT	325	481	343	12	47	9790	4760	3490	1780	561	122	96

CAL YR 1978 TOTAL 50954.90 MEAN 140 MAX 5100 MIN .40 AC-FT 101100
WTR YR 1979 TOTAL 10995.66 MEAN 30.1 MAX 380 MIN .00 AC-FT 21810

06453600 PONCA CREEK AT VERDEL, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--July 1975 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (JTU) (00070)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT										
25...	0940	7.0	1370	7.5	7.5	4	12.7	--	124	2400
NOV										
15...	1050	6.8	1370	7.7	.5	7	14.4	2.3	K97	2900
DEC										
06...	1130	6.3	1510	7.4	.5	2	8.8	3.8	K44	K360
FEB										
07...	1100	.55	1800	7.3	.5	1	11.6	3.5	<4	100
MAR										
21...	1050	179	873	7.8	1.0	140	13.5	7.0	74	3100
APR										
09...	1840	59	1260	8.0	12.0	55	10.6	3.4	K10	420
MAY										
23...	0920	38	--	7.9	13.5	45	10.4	2.7	370	700
JUN										
11...	1620	54	1260	7.8	27.5	35	8.1	3.7	370	480
JUL										
23...	1500	5.0	1420	8.1	34.5	7	7.1	4.0	1700	4000
AUG										
13...	1635	.35	1490	7.9	22.0	1	8.4	2.3	K5200	8900
SEP										
24...	1420	40	1520	7.1	22.5	2	7.5	2.6	K4000	5000

K Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)
OCT										
25...	22	1040	1.41	19.7	.02	.00	.41	.41	.43	.02
NOV										
15...	26	1100	1.50	20.2	.44	.04	.35	.39	.83	.03
DEC										
06...	21	1150	1.56	19.6	.65	.06	3.3	3.4	4.1	.03
FEB										
07...	25	--	1.88	2.05	.33	.23	.14	.37	.70	.02
MAR										
21...	11	672	.91	325	.69	.50	1.5	2.0	2.7	.12
APR										
09...	14	846	1.15	135	.63	.07	.40	.47	1.1	.04
MAY										
23...	17	1030	1.40	106	.32	.07	.46	.53	.85	.08
JUN										
11...	14	985	1.34	145	.22	.04	.75	.79	1.0	.07
JUL										
23...	21	1140	1.55	15.4	.06	.04	.39	.43	.49	.08
AUG										
13...	19	--	1.56	1.09	.11	.11	.19	.30	.41	.01
SEP										
24...	19	1310	1.78	141	.04	.06	.14	.20	.24	.00

06453600 PONCA CREEK AT VERDEL, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	ALKALINITY (MG/L AS CACO3) (00410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)
NOV 15...	1050	730	520	210	51	47	.8	12	210	580
FEB 07...	1100	930	760	260	67	72	1.0	13	170	820
MAY 23...	0920	660	590	180	50	47	.8	29	--	550
AUG 13...	1635	740	550	210	53	55	.9	14	190	670

DATE	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	PHOSPHORUS, DISSOLVED (MG/L AS P) (00666)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BARIUM, DISSOLVED (UG/L AS BA) (01005)	BORON, DISSOLVED (UG/L AS B) (01020)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)
NOV 15...	.3	12	1070	.44	.00	1	0	210	1	0
FEB 07...	.3	17	1380	--	.01	--	--	290	--	--
MAY 23...	.4	12	924	.24	.01	1	0	190	1	0
AUG 13...	.4	18	1150	--	.01	--	--	320	--	--

DATE	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, DISSOLVED (UG/L AS PB) (01049)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	MERCURY SUSPENDED RECOVERABLE (UG/L AS HG) (71895)	MERCURY DISSOLVED (UG/L AS HG) (71890)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	SILVER, DISSOLVED (UG/L AS AG) (01075)	ZINC, DISSOLVED (UG/L AS ZN) (01090)
NOV 15...	2	10	--	210	.0	--	.0	10	0	10
FEB 07...	--	20	--	2000	--	--	--	--	--	--
MAY 23...	1	0	0	20	.1	.1	.0	8	0	20
AUG 13...	--	10	--	570	--	--	--	--	--	--

06454000 NIOBRARA RIVER AT WYOMING-NEBRASKA STATE LINE

LOCATION.--Lat 42°39'33", long 104°03'54", in SE1/4SW1/4 sec.15, T.31 N., R.60 W., Niobrara County, Wyoming, Hydrologic Unit 10150002, on left bank 0.2 mi (0.3 km) downstream from Van Tassel Creek, 0.3 mi (0.5 km) upstream from Wyoming-Nebraska State line, and 3 mi (5 km) east of Van Tassel, WY.

DRAINAGE AREA.--450 mi^2 (1,170 km^2), approximately.

PERIOD OF RECORD.--October 1955 to current year.

GAGE.--Water-stage recorder. Datum of gage is 4,687.70 ft (1,428.811 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Diversions for irrigation of about 4,700 acres (19.0 km^2) above station.

AVERAGE DISCHARGE.--24 years, 4.08 ft^3/s (0.116 m^3/s), 2,960 acre-ft/yr (3.65 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,120 ft^3/s (60.0 m^3/s) Aug. 16, 1977, gage height, 8.28 ft (2.524 m) in gage well, from rating curve extended above 800 ft^3/s (22.7 m^3/s) on basis of computation of peak flow from slope-area measurement; minimum daily, 0.54 ft^3/s (0.015 m^3/s) Aug. 9, 10, 12, 1975.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5.3 ft^3/s (0.15 m^3/s) Mar. 7 at 1900, gage height, 1.38 ft (0.421 m), no peak above base of 20 ft^3/s (0.57 m^3/s); minimum daily, 1.0 ft^3/s (0.028 m^3/s) Jan. 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	2.1	2.4	2.1	2.2	2.4	3.4	3.1	2.5	2.2	2.0	2.3
2	1.9	2.2	2.4	2.1	2.4	2.5	3.2	3.2	2.5	2.2	1.8	2.2
3	1.9	2.2	2.2	2.2	2.4	2.3	3.4	3.2	2.5	2.1	1.7	2.2
4	2.0	2.3	2.1	2.2	2.4	2.2	3.3	3.2	2.4	2.1	1.5	2.1
5	1.9	2.4	2.1	2.2	2.5	2.3	3.3	3.2	2.2	2.7	1.5	2.1
6	1.9	2.1	2.0	2.1	2.6	2.5	3.2	3.2	2.1	1.9	1.5	2.2
7	1.9	2.1	1.9	2.1	2.6	3.9	3.3	3.2	2.2	1.7	1.5	2.3
8	1.9	2.1	1.9	2.2	2.6	3.7	3.2	3.3	2.2	1.7	1.7	2.4
9	1.9	2.1	1.9	2.1	2.8	3.2	3.2	3.4	2.5	1.6	2.3	2.4
10	1.9	2.1	1.9	2.1	2.8	3.6	3.3	3.6	2.2	1.6	2.1	2.3
11	1.9	2.1	1.9	2.0	2.8	3.5	3.5	4.0	2.2	1.5	2.0	2.3
12	2.0	2.1	2.0	2.0	2.8	3.6	3.9	4.3	2.2	1.4	2.0	2.4
13	2.1	2.2	2.0	2.0	2.9	3.4	3.7	3.8	2.2	1.4	2.1	2.4
14	2.4	2.0	2.0	2.0	3.1	3.7	3.6	3.7	2.1	1.5	2.2	2.5
15	2.2	1.9	2.0	2.0	2.4	3.6	3.5	3.7	2.2	1.5	2.3	2.5
16	2.2	1.9	2.0	1.9	2.4	3.5	3.4	3.4	2.7	1.5	2.4	2.4
17	2.2	1.9	2.0	1.9	2.4	3.6	3.3	3.3	2.4	1.8	2.5	2.4
18	2.0	1.9	2.0	1.9	2.4	3.5	3.2	3.1	2.1	1.8	2.9	2.4
19	2.1	1.9	2.0	1.9	2.4	3.3	3.1	3.1	2.1	1.6	2.9	2.4
20	2.1	1.9	2.0	1.9	2.5	3.4	3.1	3.1	1.9	1.6	2.7	2.4
21	2.1	1.9	2.1	1.8	2.5	3.5	3.0	2.9	1.8	1.6	2.6	2.2
22	2.1	1.9	2.0	1.8	2.4	3.3	3.1	2.9	1.8	1.6	2.6	2.2
23	2.1	2.4	2.0	1.0	2.4	3.2	2.9	2.9	2.6	1.6	2.6	2.2
24	2.1	2.8	2.0	1.4	2.4	3.4	2.9	2.7	2.9	1.7	2.6	2.2
25	2.1	2.7	2.0	2.0	2.3	3.3	2.9	2.7	2.4	1.6	3.4	2.2
26	2.1	2.7	2.0	2.4	2.2	3.3	2.9	2.7	2.4	1.8	3.5	2.0
27	2.1	2.7	1.9	2.1	2.3	3.3	3.1	2.5	2.4	1.7	3.6	2.0
28	2.1	2.7	1.9	2.2	2.3	3.3	3.1	2.7	2.2	2.2	3.7	2.0
29	2.1	2.5	2.0	2.1	---	3.5	3.2	2.7	2.2	1.9	3.7	2.0
30	2.1	2.5	2.0	2.2	---	3.6	3.1	2.6	2.1	1.9	3.1	2.0
31	2.1	---	2.1	2.2	---	3.5	---	2.7	---	2.0	2.5	---
TOTAL	63.3	66.3	62.7	62.1	70.2	100.9	97.3	98.1	68.2	55.0	75.5	67.6
MEAN	2.04	2.21	2.02	2.00	2.51	3.25	3.24	3.16	2.27	1.77	2.44	2.25
MAX	2.4	2.8	2.4	2.4	3.1	3.9	3.9	4.3	2.9	2.7	3.7	2.5
MIN	1.8	1.9	1.9	1.0	2.2	2.2	2.9	2.5	1.8	1.4	1.5	2.0
AC-FT	126	132	124	123	139	200	193	195	135	109	150	134

CAL YR 1978 TOTAL 952.73 MEAN 2.61 MAX 8.2 MIN .61 AC-FT 1890
WTR YR 1979 TOTAL 887.20 MEAN 2.43 MAX 4.3 MIN 1.0 AC-FT 1760

06454100 NIOBRARA RIVER AT AGATE, NE

LOCATION.--Lat 42°25'22", long 103°47'28", in SW1/4 sec.6, T.28 N., R.55 W., Sioux County, Hydrologic Unit 10150002, on right bank 10 ft (3 m) upstream from timber farm-vehicle bridge, 300 ft (91 m) upstream from bridge on State Highway 29, 0.2 mi (0.3 km) northwest of Agate, and 14.5 mi (23.3 km) upstream from Whistle Creek.

DRAINAGE AREA.--840 mi² (2,180 km²), approximately.

PERIOD OF RECORD.--October 1957 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,440 ft (1,353 m), from topographic map. Prior to Nov. 3, 1960, nonrecording gage at present site and datum.

REMARKS.--Records good. Diversions for irrigation of about 6,700 acres (27.1 km²) above station.

AVERAGE DISCHARGE.--22 years, 14.2 ft³/s (0.402 m³/s), 10,290 acre-ft/yr (12.7 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 181 ft³/s (5.13 m³/s) June 23, 1959, gage height, 5.00 ft (1.524 m), from floodmark; minimum daily, 1.0 ft³/s (0.028 m³/s) Mar. 29, 1975.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 35 ft³/s (0.99 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Mar. 9	1600	40	1.1	3.35	1.021
Mar. 12	1430	*42	1.2	3.37	1.027

Minimum daily, 4.2 ft³/s (0.12 m³/s) Aug. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.2	12	15	11	12	16	24	12	9.6	9.2	8.0	10
2	8.8	12	12	10	12	18	22	12	9.4	8.7	7.9	10
3	9.3	11	9.5	8.9	12	17	20	12	9.4	8.4	7.5	10
4	9.3	11	11	9.5	12	18	20	12	9.0	6.8	6.1	9.8
5	9.3	10	13	10	12	18	19	12	8.5	7.9	4.6	9.6
6	9.1	10	12	10	12	21	19	12	8.0	7.2	4.3	9.4
7	9.4	10	12	10	12	25	19	12	8.5	7.2	4.2	9.4
8	9.6	10	13	10	11	30	18	13	8.8	6.4	4.4	9.4
9	9.8	11	12	10	11	29	18	14	9.8	6.2	6.1	9.2
10	9.7	11	11	10	12	29	18	15	9.7	5.9	5.8	9.0
11	9.7	13	11	10	12	32	19	16	8.5	5.7	5.6	10
12	9.3	15	12	11	12	35	19	15	7.7	5.6	5.3	10
13	9.4	15	12	10	13	35	18	15	7.0	5.4	5.2	10
14	9.3	15	12	10	14	26	18	13	6.5	5.6	7.1	9.7
15	9.4	14	12	11	13	27	18	13	6.5	5.6	7.7	8.7
16	9.9	15	12	9.5	12	26	17	13	8.8	6.5	7.7	8.6
17	9.7	15	13	11	13	26	15	12	8.8	7.6	7.6	8.4
18	9.5	15	13	11	13	26	14	13	7.9	7.6	8.5	8.3
19	9.5	14	13	11	14	24	14	13	8.9	8.7	9.7	8.2
20	9.5	12	13	11	14	23	14	13	8.4	8.3	10	8.2
21	9.5	12	14	9.5	14	22	14	13	9.8	7.9	9.8	8.2
22	10	14	13	9.4	14	21	13	12	10	7.8	9.3	8.2
23	12	16	14	10	13	20	13	12	11	7.8	9.3	8.6
24	12	16	14	9.8	14	20	13	12	17	7.9	9.8	9.3
25	12	16	14	11	15	20	13	10	20	7.8	13	9.0
26	12	16	13	11	15	20	13	8.8	13	8.5	12	8.8
27	12	16	13	11	15	21	13	8.8	11	8.7	12	8.8
28	12	16	13	11	15	21	13	8.7	11	8.9	13	9.0
29	12	16	12	11	---	20	12	9.7	10	8.7	14	9.0
30	12	16	11	12	---	21	12	10	9.4	8.3	12	9.0
31	12	---	11	12	---	22	---	10	---	8.1	11	---
TOTAL	315.2	405	385.5	322.6	363	729	492	377.0	291.9	230.9	258.5	273.8
MEAN	10.2	13.5	12.4	10.4	13.0	23.5	16.4	12.2	9.73	7.45	8.34	9.13
MAX	12	16	15	12	15	35	24	16	20	9.2	14	10
MIN	8.2	10	9.5	8.9	11	16	12	8.7	6.5	5.4	4.2	8.2
AC-FT	625	803	765	640	720	1450	976	748	579	458	513	543

CAL YR 1978 TOTAL 4826.4 MEAN 13.2 MAX 35 MIN 5.2 AC-FT 9570
WTR YR 1979 TOTAL 4444.4 MEAN 12.2 MAX 35 MIN 4.2 AC-FT 8820

06454500 NIOBRARA RIVER ABOVE BOX BUTTE RESERVOIR, NE

LOCATION.--Lat 42°27'35", long 103°10'15", in NE1/4 sec.27, T.29 N., R.50 W., Dawes County, Hydrologic Unit 10150002, on right bank 1 mi (2 km) upstream from high-water line of Box Butte Reservoir and 6 mi (10 km) east of Marsland.

DRAINAGE AREA.--1,400 mi² (3,630 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1946 to current year.

REVISED RECORDS.--WSP 1917: 1951, 1952(P), 1957(M).

GAGE.--Water-stage recorder. Concrete control since Oct. 12, 1953. Datum of gage is 4,012.47 ft (1,223.001 m) National Geodetic Vertical Datum of 1929. Prior to Nov. 27, 1949, nonrecording gage at present site and datum.

REMARKS.--Records good except those for winter period, which are fair. Diversions for irrigation of about 12,800 acres (51.8 km²) above station.

AVERAGE DISCHARGE.--33 years, 30.0 ft³/s (0.850 m³/s), 21,740 acre-ft/yr (26.8 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,950 ft³/s (140 m³/s) July 28, 1951, gage height, 10.30 ft (3.139 m), from rating curve extended above 230 ft³/s (6.51 m³/s) on basis of step-backwater analysis and slope-area measurement at gage height 9.22 ft (2.810 m); minimum daily, 1.6 ft³/s (0.045 m³/s) Sept. 26, 1953.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 160 ft³/s (4.53 m³/s) July 30 at 2030, gage height, 5.18 ft (1.579 m), no other peaks above base of 100 ft³/s (2.83 m³/s); maximum gage height, 5.72 ft (1.743 m) Feb. 3, backwater from ice; minimum daily discharge, 6.5 ft³/s (0.18 m³/s) Aug. 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	23	27	20	25	34	57	35	14	10	20	17
2	12	23	20	16	24	38	55	35	12	10	20	17
3	8.5	24	22	20	23	37	52	35	12	9.0	20	9.5
4	10	24	25	22	24	38	51	35	12	10	19	10
5	10	25	26	24	25	44	49	35	12	11	18	8.5
6	16	26	26	25	25	59	48	35	10	12	17	7.5
7	15	26	26	25	25	69	48	28	10	11	16	7.5
8	15	27	26	25	24	77	46	27	10	10	14	9.5
9	15	27	26	26	24	75	45	35	12	9.5	14	8.5
10	15	27	25	26	24	67	45	36	12	8.5	14	12
11	15	25	22	26	24	73	47	38	12	12	14	16
12	15	24	22	26	24	80	49	37	10	11	14	15
13	15	25	22	26	25	77	48	37	15	10	12	16
14	14	20	22	24	25	61	47	36	14	10	12	19
15	14	22	22	22	25	63	46	35	14	10	6.5	20
16	15	22	22	22	25	60	45	34	15	10	8.0	20
17	15	24	24	20	27	60	44	30	18	10	8.5	20
18	15	24	23	22	29	57	43	29	18	11	19	19
19	15	25	25	24	30	55	42	18	19	12	25	19
20	15	25	24	26	31	54	41	19	18	11	27	19
21	15	27	25	28	32	53	40	18	18	11	18	19
22	18	29	28	28	32	55	39	18	19	14	14	20
23	16	29	26	26	28	55	38	18	18	14	15	21
24	17	29	24	25	29	55	36	18	8.0	14	16	21
25	18	29	24	25	29	55	37	17	9.0	16	17	20
26	22	29	28	25	29	52	36	17	9.5	18	18	21
27	23	27	26	26	32	52	36	15	10	17	22	21
28	23	26	26	26	32	52	36	14	10	21	20	20
29	23	27	24	26	---	52	36	14	10	20	20	20
30	23	27	24	25	---	58	36	14	10	29	18	20
31	23	---	24	25	---	57	---	14	---	22	18	---
TOTAL	498.5	767	756	752	751	1774	1318	626	390.5	404.0	514.0	493.0
MEAN	16.1	25.6	24.4	24.3	26.8	57.2	43.9	26.6	13.0	13.0	16.6	16.4
MAX	23	29	28	28	32	80	57	38	19	29	27	21
MIN	8.5	20	20	16	23	34	36	14	8.0	8.5	6.5	7.5
AC-FT	989	1520	1500	1490	1490	3520	2610	1640	775	801	1020	978

CAL YR 1978 TOTAL 9581.0 MEAN 26.2 MAX 96 MIN 8.5 AC-FT 19000
WTR YR 1979 TOTAL 9244.0 MEAN 25.3 MAX 80 MIN 6.5 AC-FT 18340

06454500 NIOBRARA RIVER ABOVE BOX BUTTE RESERVOIR, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--July 1975 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (JTU) (00070)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT 24...	1100	16	435	7.6	8.0	10	11.0	2.0	200	150
NOV 28...	1100	22	435	7.5	2.0	10	12.7	3.4	K17	61
DEC 26...	1215	32	500	7.8	.0	15	12.1	2.0	K6	82
FEB 21...	1150	31	420	7.9	.5	20	11.9	.4	K7	>2000
MAR 26...	1130	52	448	7.6	4.0	15	12.5	2.8	K5	23
APR 24...	1015	37	410	7.8	13.0	15	9.8	1.2	34	59
JUN 25...	1130	8.4	418	8.2	22.0	8	9.6	2.2	K67	48
JUL 24...	1015	13	385	7.5	18.0	25	8.3	6.6	1800	3600
AUG 27...	1130	20	430	8.0	20.5	20	10.6	3.2	310	820
SEP 25...	1220	20	390	8.3	17.5	20	9.2	1.7	220	100

K Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)
OCT 24...	5.5	277	.38	12.1	.94	.02	.37	.39	1.3	.03
NOV 28...	4.8	283	.38	16.8	1.5	.01	.34	.35	1.8	.01
DEC 26...	6.0	298	.41	25.7	1.6	.01	.43	.44	2.0	.05
FEB 21...	5.4	285	.39	23.9	1.5	.03	.56	.59	2.1	.09
MAR 26...	4.9	289	.39	40.6	.59	.01	.29	.30	.89	.02
APR 24...	5.4	273	.37	27.3	.47	.01	.28	.29	.76	.02
JUN 25...	4.7	268	.36	6.08	.97	.04	.05	.09	1.1	.01
JUL 24...	8.5	249	.34	8.94	.81	.04	.01	.05	.86	.01
AUG 27...	4.8	279	.38	15.5	.68	.03	1.2	1.2	1.9	.07
SEP 25...	7.6	312	.42	17.2	.87	.02	.56	.58	1.5	.06

06454500 NIOBRARA RIVER ABOVE BOX BUTTE RESERVOIR, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)
NOV 28...	1100	160	0	50	9.3	21	.7	7.1	190
FEB 21...	1150	170	0	52	9.6	26	.9	7.9	180
AUG 27...	1130	150	0	44	9.0	28	1.0	7.8	190

DATE	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P) (00666)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BORON, DIS-SOLVED (UG/L AS B) (01020)
NOV 28...	15	.6	52	--	1.5	.01	6	100	60
FEB 21...	16	.6	51	277	--	.04	--	--	60
AUG 27...	15	.7	54	278	--	.02	--	--	70

DATE	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
NOV 28...	0	0	20	20	.0	2	0	4
FEB 21...	--	--	70	0	--	--	--	--
AUG 27...	--	--	60	7	--	--	--	--

NIOBRARA RIVER BASIN

06455000 BOX BUTTE RESERVOIR NEAR HEMINGFORD, NE

LOCATION.--Lat 42°27'30", long 103°04'03", in sec.28, T.29 N., R.49 W., Dawes County, Hydrologic Unit 10150002, in control tower on dam near left bank on Niobrara River, 9 mi (14 km) north of Hemingford.

DRAINAGE AREA.--1,460 mi^2 (3,780 km^2), approximately.

PERIOD OF RECORD.--October 1945 to current year.

GAGE.--Electric tape gage read three or more times a month. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Reservoir is formed by earthfill dam; outlet gate first closed Oct. 3, 1945. Usable capacity, 30,420 acre-ft (37.5 hm^3) between elevations 3,969.00 ft (1,209.751 m), sill of outlet gate, and 4,007.00 ft (1,221.334 m), crest of spillway. Dead storage, 640 acre-ft (0.789 hm^3). Figures given herein represent total contents. Water is used for irrigation of Mirage Flats project of Water and Power Resouces Service (formerly Bureau of Reclamation).

COOPERATION.--Records of elevations and capacity table furnished by Water and Power Resources Service (formerly Bureau of Reclamation).

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 32,210 acre-ft (39.7 hm^3) Mar. 26, 1948, elevation, 4,007.70 ft (1,221.547 m); minimum observed since operation of reservoir began, 764 acre-ft (0.942 hm^3) Aug. 23 to Sept. 14, 1976, elevation, 3,969.82 ft (1,210.001 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 15,990 acre-ft (19.7 hm^3) May 31, elevation, 3,995.81 ft (1,217.923 m); minimum observed, 3,960 acre-ft (4.88 hm^3) Sept. 15, elevation, 3,980.50 ft (1,213.256 m).

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

Date	Elevation (feet) a/	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	3,978.51	3,040	-
Oct. 31	3,980.52	3,970	+930
Nov. 30	3,984.54	6,200	+2,230
Dec. 31	3,986.42	7,440	+1,240
CAL YR 1978			-1,850
Jan. 31	3,987.49	8,220	+780
Feb. 28	3,989.54	9,870	+1,650
Mar. 31	3,993.01	13,080	+3,210
Apr. 30	3,994.97	15,080	+2,000
May 31	3,995.81	15,990	+910
June 30	3,995.65	15,820	-170
July 31	3,987.87	8,510	-7,310
Aug. 31	3,983.41	5,530	-2,980
Sept. 30	3,981.90	4,690	-840
WTR YR 1979	-	-	+1,650

a Elevations read on or near last day of month.

06455500 NIOBRARA RIVER BELOW BOX BUTTE RESERVOIR, NE

LOCATION.--Lat 42°27'25", long 103°04'05", in SE1/4 sec.28, T.29 N., R.49 W., Dawes County, Hydrologic Unit 10150003, on left bank 0.2 mi (0.3 km) downstream from Box Butte Reservoir and 9 mi (14 km) north of Hemingford.

DRAINAGE AREA.--1,460 mi² (3,780 km²), approximately.

PERIOD OF RECORD.--October 1946 to current year.

GAGE.--Water-stage recorder. Concrete control since Apr. 11, 1953. Datum of gage is 3,950.08 ft (1,203.984 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those below 2 ft³/s (0.057 m³/s), which are fair. Flow completely regulated by Box Butte Reservoir (station 06455000).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 616 ft³/s (17.4 m³/s) July 2, 1968, gage height, 5.04 ft (1.536 m); minimum daily, 0.10 ft³/s (0.003 m³/s) for many days in 1947, 1951.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 201 ft³/s (5.69 m³/s) July 12, gage height, 4.38 ft (1.335 m); minimum daily, 0.52 ft³/s (0.015 m³/s) Jan. 20, Feb. 1-15, Sept. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.66	.82	.76	.70	.52	.66	.69	.69	.76	.76	112	.85
2	.66	.76	.76	.69	.52	.66	.69	.69	.76	17	113	2.3
3	.66	.76	.76	.69	.52	.62	.69	.72	.76	43	137	52
4	.62	.76	.76	.69	.52	.62	.66	.69	.76	43	148	79
5	.62	.72	.76	.66	.52	.62	.69	.69	.72	47	151	101
6	.62	.72	.76	.66	.52	.66	.69	.69	.72	60	153	106
7	.66	.72	.76	.66	.52	.69	.66	.69	.72	69	151	94
8	.66	.72	.76	.62	.52	.69	.69	.80	.76	75	148	79
9	.62	.72	.72	.62	.52	.66	.69	.80	.83	110	139	92
10	.72	.72	.72	.62	.52	.66	.72	.87	.76	157	112	95
11	.72	.76	.72	.62	.52	.66	.76	.83	.72	178	103	77
12	.72	.76	.72	.62	.52	.66	.72	.80	.72	195	106	58
13	.72	.72	.72	.62	.52	.62	.72	.76	.69	183	112	58
14	.72	.72	.72	.62	.52	.66	.72	.80	.72	180	106	58
15	.72	.72	.72	.58	.52	.66	.72	.80	.69	175	103	18
16	.72	.72	.69	.58	.55	.66	.69	.76	.76	177	110	.69
17	.72	.72	.72	.55	.55	.66	.69	.76	.72	164	106	.62
18	.76	.69	.72	.55	.55	.66	.72	.76	.76	158	94	.58
19	.80	.69	.72	.55	.58	.62	.69	.76	.80	143	42	.55
20	.83	.69	.72	.52	.58	.66	.69	.76	.69	136	.83	.52
21	.76	.69	.76	.55	.62	.69	.69	.76	.72	139	.76	.55
22	.80	.69	.76	.55	.58	.69	.69	.76	.69	134	.69	.55
23	.80	.69	.76	.55	.58	.69	.69	.72	.66	136	.69	.55
24	.76	.69	.76	.55	.62	.69	.69	.72	.72	127	.66	.55
25	.76	.72	.76	.55	.62	.69	.69	.76	.72	103	.62	.55
26	.76	.76	.76	.55	.62	.69	.66	.72	.72	85	.58	.55
27	.76	.76	.76	.55	.62	.69	.66	.76	.69	72	.58	.55
28	.76	.76	.72	.55	.66	.66	.66	.69	.72	72	.58	1.0
29	.78	.76	.72	.55	---	.72	.66	.76	.76	76	.58	.58
30	.76	.76	.72	.55	---	.72	.66	.72	.76	95	.58	.55
31	.80	---	.72	.55	---	.72	---	.80	---	118	.55	---
TOTAL	22.43	21.89	22.89	18.47	15.53	20.71	20.74	23.29	21.98	3467.76	2253.70	979.09
MEAN	.72	.73	.74	.60	.55	.67	.69	.75	.73	112	72.7	32.6
MAX	.83	.82	.76	.70	.66	.72	.76	.87	.83	195	153	106
MIN	.62	.69	.69	.52	.52	.62	.66	.69	.66	.76	.55	.52
AC-FT	44	43	45	37	31	41	41	46	44	6880	4470	1940

CAL YR 1978 TOTAL 9710.78 MEAN 26.6 MAX 223 MIN .62 AC-FT 19260
WTR YR 1979 TOTAL 6888.48 MEAN 18.9 MAX 195 MIN .52 AC-FT 13660

06457500 NIOBRARA RIVER NEAR GORDON, NE

LOCATION.--Lat 42°38'00", long 102°12'40", in NE1/4 sec.26, T.31 N., R.42 W., Sheridan County, Hydrologic Unit 10150003, on left bank 250 ft (76 m) upstream from bridge on State Highway 27, 4 mi (6 km) downstream from Rush Creek, and 11 mi (18 km) south of Gordon.

DRAINAGE AREA.--4,290 mi^2 (11,100 km^2), approximately.

PERIOD OF RECORD.--August 1928 to September 1932, October 1945 to current year. Monthly discharge only for some periods, published in WSP 1309.

REVISED RECORDS.--WDR NE-67: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,433.49 ft (1,046.528 m) National Geodetic Vertical Datum of 1929. Aug. 24, 1928, to June 30, 1932 nonrecording gage at bridge 4 mi (6 km) downstream at different datum. Dec. 3, 1945, to Mar. 24, 1970, water-stage recorder at datum 1.0 ft (0.30 m) higher.

REMARKS.--Records good except those for winter period, which are fair. Natural flow of stream affected by storage in Box Butte Reservoir (station 06455000) for irrigation of Mirage Flats project and return flow from irrigated land.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,130 ft^3/s (259 m^3/s) May 21, 1962, gage height, 5.25 ft (1.600 m); minimum daily, 16 ft^3/s (0.45 m^3/s) Dec. 20, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 700 ft^3/s (19.8 m^3/s) Aug. 20, gage height, 1.30 ft (0.396 m); maximum gage height, 1.81 ft (0.552 m) Jan. 17, backwater from ice; minimum daily discharge, 58 ft^3/s (1.64 m^3/s) Aug. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	91	100	106	100	108	146	142	114	105	85	79	98
2	91	100	100	100	108	146	132	112	92	85	83	91
3	93	98	98	96	108	129	129	118	86	91	72	91
4	96	100	98	96	118	140	130	122	78	150	69	88
5	95	100	100	90	118	153	136	117	76	97	74	83
6	102	104	102	86	118	157	142	111	72	97	63	81
7	104	106	102	86	120	164	159	102	80	88	61	87
8	104	108	102	86	120	176	165	118	84	83	58	88
9	101	109	102	86	120	168	164	146	107	75	91	81
10	105	105	104	86	120	150	151	160	120	72	88	81
11	101	94	110	86	125	168	158	201	104	67	76	96
12	96	94	110	86	125	196	147	168	78	65	70	105
13	99	100	110	84	125	201	144	160	72	72	67	102
14	104	100	110	82	125	180	143	138	72	80	66	92
15	108	100	110	80	125	172	149	132	65	75	70	89
16	108	110	110	84	120	160	129	125	100	108	79	85
17	105	114	110	86	120	168	124	118	96	94	90	78
18	106	114	110	90	125	172	119	122	97	81	169	86
19	109	110	114	92	130	164	117	118	120	77	534	84
20	105	106	122	98	135	164	131	112	118	70	614	81
21	104	100	130	104	140	168	127	112	103	64	453	85
22	109	110	130	106	140	172	125	112	104	73	250	87
23	117	120	130	106	145	168	125	115	140	63	116	93
24	114	125	130	110	150	156	119	115	121	84	112	93
25	109	116	130	110	155	149	126	106	164	112	141	92
26	105	106	125	106	160	150	126	102	128	110	180	90
27	103	106	120	106	164	150	126	100	122	95	176	89
28	106	106	114	106	153	148	125	88	105	86	125	91
29	107	106	110	100	---	159	124	94	93	72	114	93
30	100	106	106	100	---	157	122	112	85	66	108	94
31	97	---	102	100	---	152	---	120	---	73	101	---
TOTAL	3194	3173	3457	2934	3620	5003	4056	3810	2987	2610	4449	2674
MEAN	103	106	112	94.6	129	161	135	123	99.6	84.2	144	89.1
MAX	117	125	130	110	164	201	165	201	164	150	614	105
MIN	91	94	98	80	108	129	117	88	65	63	58	78
AC-FT	6340	6290	6860	5820	7180	9920	8050	7560	5920	5180	8820	5300

CAL YR 1978 TOTAL 42513 MEAN 116 MAX 570 MIN 62 AC-FT 84320
WTR YR 1979 TOTAL 41967 MEAN 115 MAX 614 MIN 58 AC-FT 83240

06459200 SNAKE RIVER ABOVE MERRITT RESERVOIR, NE

LOCATION.--Lat 42°36'12", long 101°04'14", in NW1/4SW1/4 sec.3, T.30 N., R.32 W., Cherry County, Hydrologic Unit 10150005, on left bank 0.2 mi (0.3 km) south of Nebraska National Forest boundary fence, 2.6 mi (4.2 km) upstream from Shelbourn Bridge, 7.1 mi (11.4 km) southeast of headquarters for Nebraska National Forest (Niobrara Division), 12.4 mi (20.0 km) upstream from Boardman Creek, and 16.9 mi (27.2 km) upstream from Merritt Dam.

DRAINAGE AREA.--440 mi² (1,140 km²), approximately, of which about 28 mi² (73 km²) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1962 to current year.

REVISED RECORDS.--WDR NE-72: Drainage area.

GAGE.--Water-stage recorder. Prior to Sept. 9, 1977, at site 2.4 mi (3.9 km) downstream at different datum.

REMARKS.—Records fair except those for flow above 250 ft³/s (7.08 m³/s) and those for winter period, which are poor.

AVERAGE DISCHARGE.--17 years, 204 ft³/s (5.777 m³/s), 147,800 acre-ft/yr (0.182 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 637 ft³/s (18.0 m³/s) Aug. 12, 1966, gage height, 2.43 ft (0.741 m), site and datum then in use; maximum gage height, 8.63 feet, site and datum then in use, Mar. 14, 1977, ice jam; minimum daily discharge, 89 ft³/s (2.52 m³/s) Dec. 13, 1968.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum flood since October 1960, 820 ft³/s (23.2 m³/s) June 30, 1962, gage height, 2,953.46 ft (900.215 m) National Geodetic Vertical Datum of 1929, from high-water profiles at reference point on downstream side of Shelbourn Bridge 2.6 mi (4.2 km) downstream, result of slope-area measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 342 ft³/s (9.69 m³/s) Aug. 20, gage height, 2.23 ft (0.680 m), no peak above base of 350 ft³/s (9.91 m³/s); maximum gage height, 5.54 ft (1.689 m) Feb. 24, ice jam; minimum daily discharge, 145 ft³/s (4.11 m³/s) Jan. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	180	189	200	145	190	237	175	218	192	210	183	174
2	173	197	200	150	185	225	195	224	186	205	207	168
3	169	196	190	245	200	209	203	199	186	200	194	174
4	173	196	200	230	190	203	191	214	186	190	181	182
5	164	197	190	230	200	194	198	216	192	200	173	186
6	166	191	180	230	185	214	171	218	192	210	177	185
7	169	190	170	240	185	194	200	215	198	210	178	197
8	180	192	165	240	190	194	181	226	189	190	174	202
9	184	195	190	225	200	197	195	236	215	180	181	191
10	177	198	225	230	185	192	198	234	205	180	187	189
11	178	182	220	220	185	207	204	226	205	167	181	186
12	187	189	225	210	190	213	208	249	202	158	172	221
13	178	189	220	200	180	190	213	241	195	161	176	201
14	180	189	220	190	190	164	215	242	192	164	175	207
15	177	202	225	195	180	173	220	228	189	161	170	216
16	172	205	220	200	185	184	223	211	218	167	173	218
17	179	202	225	195	180	192	224	208	222	170	183	222
18	179	195	230	200	175	189	220	215	211	173	205	213
19	174	190	225	200	180	170	215	208	222	166	255	202
20	177	195	220	195	185	189	210	202	228	169	284	211
21	184	200	215	195	190	196	215	195	215	168	248	203
22	199	200	220	200	200	176	220	195	204	165	246	209
23	184	205	200	190	195	180	225	192	216	173	250	203
24	185	200	180	200	190	185	215	192	203	186	247	196
25	182	205	200	190	220	190	199	195	243	208	241	196
26	176	210	190	185	198	193	207	198	199	188	218	210
27	178	205	190	190	193	209	211	195	263	179	209	204
28	175	200	180	185	200	184	218	198	260	176	196	194
29	178	200	160	190	---	194	216	202	230	172	189	199
30	184	208	155	195	---	172	215	198	220	168	190	198
31	186	---	150	180	---	186	---	189	---	176	182	---
TOTAL	5527	5912	6180	6270	5326	5995	6200	6579	6278	5590	6225	5957
MEAN	178	197	199	202	190	193	207	212	209	180	201	199
MAX	199	210	230	245	220	237	225	249	263	210	284	222
MIN	164	182	150	145	175	164	171	189	186	158	170	168
AC-FT	10960	11730	12260	12440	10560	11890	12300	13050	12450	11090	12350	11820

CAL YR 1978 TOTAL 73926 MEAN 203 MAX 364 MIN 150 AC-FT 146600
WTR YR 1979 TOTAL 72039 MEAN 197 MAX 284 MIN 145 AC-FT 142900

06459200 SNAKE RIVER ABOVE MERRITT RESERVOIR, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water year 1963 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Water years 1963-1975, October 1977 to current year.

INSTRUMENTATION.--Temperature recorder from Oct. 1, 1963.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 32.0°C July 18, 1974; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 31.0°C July 3; minimum, 0.0°C on many days during winter period.

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	TEMPER-ATURE (DEG C) (00010)
OCT 11...	1100	185	168	11.5
DEC 12...	1205	232	155	.5
MAR 06...	1210	208	159	8.0
27...	1040	198	160	4.0
APR 17...	1000	222	167	14.0
JUN 20...	0940	222	158	14.0
JUL 11...	1050	171	160	22.5
AUG 21...	1030	237	150	16.0
SEP 11...	1030	192	165	16.0

06459200 SNAKE RIVER ABOVE MERRITT RESERVOIR, NE--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	17.0	12.0	12.0	7.0	4.0	1.0	.0	.0	.0	.0	7.0	3.0
2	15.5	13.0	13.5	9.0	1.5	1.0	.0	.0	.5	.0	6.5	2.0
3	14.5	9.5	13.5	9.5	1.5	1.0	.0	.0	.5	.0	3.0	1.5
4	13.5	9.5	12.0	9.0	.5	.0	.5	.0	.0	.0	5.5	1.5
5	12.0	8.0	11.5	8.5	.5	.0	.5	.0	.0	.0	9.0	3.0
6	13.5	7.0	8.5	5.0	.5	.5	.5	.0	.0	.0	9.5	6.0
7	14.0	8.5	10.0	5.5	1.0	.5	.5	.5	.0	.0	9.5	6.0
8	16.5	9.5	11.0	8.0	1.0	.5	.5	.0	.5	.0	9.0	7.0
9	16.0	11.0	10.5	7.0	.5	.5	.5	.0	2.0	.5	8.0	4.0
10	16.5	10.0	8.5	3.0	.0	.0	.0	.0	2.0	2.0	6.5	1.5
11	16.0	11.5	3.0	1.5	.0	.0	.0	.0	3.5	2.0	11.0	4.5
12	14.0	10.5	1.5	1.5	.0	.0	.5	.0	3.5	3.5	11.5	6.5
13	11.5	7.0	4.0	2.0	.5	.0	.5	.5	3.5	.0	11.0	6.5
14	11.5	6.5	3.0	1.5	.0	.0	.5	.0	.0	.0	10.5	4.5
15	13.5	8.5	4.0	1.5	.0	.0	.5	.5	.0	.0	9.5	4.5
16	12.0	8.0	5.5	3.0	.0	.0	.5	.0	.5	.5	11.0	6.5
17	14.0	8.0	5.5	1.5	.0	.0	.0	.0	.5	.5	12.0	8.0
18	14.0	9.5	4.5	1.5	.0	.0	.0	.0	.5	.5	11.5	1.0
19	15.0	9.0	1.5	1.5	.0	.0	.0	.0	.5	.5	8.0	1.0
20	14.5	10.0	1.5	1.5	.0	.0	.0	.0	1.5	.5	9.5	3.5
21	15.5	13.0	1.5	1.5	.0	.0	.0	.0	.5	.5	8.5	5.5
22	14.0	9.0	1.5	1.0	.0	.0	.0	.0	1.5	.5	6.0	4.5
23	10.5	6.0	1.0	1.0	.0	.0	.0	.0	.5	.0	8.0	3.5
24	13.0	7.0	3.0	1.0	.0	.0	.0	.0	1.0	.5	10.0	3.5
25	11.0	8.5	3.5	2.0	.0	.0	.0	.0	3.0	.5	8.5	5.0
26	10.5	5.5	4.0	1.5	.0	.0	.0	.0	6.5	2.0	8.5	3.0
27	11.0	6.5	3.5	2.0	.0	.0	.0	.0	6.0	4.0	9.5	4.0
28	10.5	7.0	3.5	1.0	.0	.0	.0	.0	5.0	3.0	11.0	5.5
29	12.0	7.0	4.5	1.5	.0	.0	.5	.0	---	---	9.5	5.0
30	11.0	8.5	4.5	2.0	.0	.0	.5	.0	---	---	8.5	4.0
31	10.0	6.5	---	---	.0	.0	.5	.0	---	---	6.5	4.5
MONTH	17.0	5.5	13.5	1.0	4.0	.0	.5	.0	6.5	.0	12.0	1.0
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	5.0	4.0	18.0	9.5	20.0	13.5	28.0	20.5	28.5	19.0	23.5	17.0
2	6.5	3.5	15.0	10.0	21.5	14.0	29.0	22.0	28.0	19.0	24.0	16.5
3	8.5	4.0	13.5	8.5	23.0	15.5	31.0	23.0	26.5	20.5	25.0	17.0
4	10.5	4.0	16.5	9.5	25.0	17.0	28.0	20.5	29.5	20.5	25.5	18.5
5	9.0	5.0	18.5	11.5	24.5	18.0	20.5	18.5	28.0	23.0	24.0	19.0
6	11.0	3.0	20.5	13.5	24.0	18.0	21.0	16.5	29.0	20.0	23.5	17.0
7	13.5	6.0	16.0	11.5	21.5	16.5	25.5	18.0	30.0	23.0	24.0	17.0
8	13.5	6.5	13.5	8.0	17.0	14.5	26.5	20.0	28.5	21.0	24.5	18.0
9	14.5	7.0	8.0	4.5	16.0	13.5	27.0	21.5	27.0	21.0	25.0	18.5
10	11.0	7.0	11.0	4.0	23.0	12.0	29.5	21.5	24.0	19.0	23.5	19.5
11	7.0	2.0	16.5	6.5	25.5	16.5	30.5	22.0	26.5	18.5	20.0	16.0
12	8.5	1.0	16.5	10.5	29.0	19.0	30.5	23.5	25.0	18.0	19.0	15.5
13	12.0	4.0	18.5	11.0	28.5	20.5	28.0	23.0	23.0	18.5	17.0	13.0
14	15.0	7.0	20.0	12.0	28.0	20.0	25.5	19.5	19.5	16.5	18.0	13.5
15	16.5	9.0	19.0	13.5	26.0	19.5	25.5	19.5	16.5	14.5	19.5	13.5
16	18.5	11.0	22.0	14.0	25.0	19.0	23.5	18.0	24.0	15.5	19.5	14.5
17	19.0	13.5	19.5	15.5	22.0	16.5	21.0	17.0	27.0	19.5	19.5	14.5
18	18.5	14.0	17.0	14.0	16.5	15.0	24.5	19.0	24.5	19.5	20.0	15.0
19	17.0	14.0	20.0	12.0	16.5	15.5	27.0	19.0	19.5	18.5	19.5	15.0
20	17.0	10.5	20.0	14.0	21.0	13.5	26.5	20.5	19.0	18.0	18.5	15.0
21	18.0	11.0	20.5	14.0	26.5	17.0	28.0	20.5	22.0	15.5	17.0	13.0
22	19.5	13.5	20.5	15.0	24.0	18.0	28.5	21.0	23.0	17.0	18.5	13.0
23	19.5	13.5	21.0	13.5	24.5	19.0	30.0	21.5	24.0	18.0	19.0	14.5
24	16.5	14.5	22.0	13.5	25.0	19.0	25.5	21.0	25.5	18.5	19.0	14.5
25	16.0	11.5	21.5	14.0	26.5	18.0	27.0	19.0	23.0	18.0	19.0	14.5
26	14.0	11.0	23.5	16.0	28.0	19.5	26.5	21.0	24.0	16.0	19.0	15.0
27	14.0	8.5	25.0	15.5	28.0	21.0	28.0	20.5	24.0	18.5	19.0	15.0
28	13.5	8.5	24.0	16.5	26.5	20.0	30.0	21.5	22.0	18.0	19.0	14.5
29	15.5	7.0	21.0	16.0	27.0	20.5	30.0	21.5	25.0	17.0	18.0	14.0
30	17.0	9.5	16.0	13.0	26.5	21.0	28.0	21.0	27.0	19.5	18.0	13.0
31	---	---	18.0	13.0	---	---	26.0	20.5	26.0	19.0	---	---
MONTH	19.5	1.0	25.0	4.0	29.0	12.0	31.0	16.5	30.0	14.5	25.5	13.0

06459300 MERRITT RESERVOIR NEAR BURGE, NE

LOCATION.--Lat 42°38'06", long 100°52'18", in SE1/4NW1/4 sec.29, T.31 N., R.30 W., Cherry County, Hydrologic Unit 10150005, in control house of outlet works of Merritt Dam, 8.1 mi (13.0 km) southwest of Burge and 23 mi (37 km) southwest of Valentine.

DRAINAGE AREA.--640 mi² (1,660 km²), approximately, of which about 44 mi² (110 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--February 1964 to current year.

REVISED RECORDS.--WDR NE-67: Drainage area.

GAGE.--Direct reading, single vertical column, mercury-well type manometer read once daily. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.-- Reservoir is formed by earthfill dam; storage began Feb. 19, 1964. Usable capacity, 72,872 acre-ft (89.9 hm³) between elevations 2,875.0 ft (876.30 m), sill of canal outlet works, and 2,946.0 ft (897.94 m), crest of spillway. Dead and inactive storage, 1,614 acre-ft (1.99 hm³) below elevation 2,875.0 ft (876.30 m). Figures given herein represent total contents. Water is used for irrigation of Ainsworth Unit of Water and Power Resources Service (formerly Bureau of Reclamation).

COOPERATION.--Records of elevation and capacity table furnished by Water and Power Resources Service (formerly Bureau of Reclamation).

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 76,840 acre-ft (94.7 hm³) May 4, 1971, May 28 to June 2, 1976, elevation 2,946.8 ft (898.18 m); minimum since appreciable storage was attained, 20,060 acre-ft (24.7 hm³) Oct. 1, 1968, elevation, 2,916.1 ft (888.83 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 74,780 acre-ft (92.2 hm³) June 16-17, 22-29, elevation, 2,946.1 ft (897.97 m); minimum observed, 49,280 acre-ft (60.8 hm³) Sept. 7-9, elevation, 2,936.0 ft (894.89 m).

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	2,937.9	53,450	-
Oct. 31	2,940.0	58,420	+4,970
Nov. 30	2,940.1	58,670	+250
Dec. 31	2,939.9	58,180	-490
CAL YR 1978	-	-	-10,650
Jan. 31	2,939.5	57,210	-970
Feb. 28	2,939.7	57,690	+480
Mar. 31	2,940.1	58,670	+980
Apr. 30	2,943.2	66,660	+7,990
May 31	2,946.0	74,490	+7,830
June 30	2,946.0	74,490	0
July 31	2,942.2	64,000	-10,490
Aug. 31	2,937.1	51,660	-12,340
Sept. 30	2,939.2	56,490	+4,830
WTR YR 1979	-	-	-1,690

06459500 SNAKE RIVER NEAR BURGE, NE

LOCATION.--Lat 42°39'15", long 100°51'20", in NE1/4 sec.20, T.31 N., R.30 W., Cherry County, Hydrologic Unit 10150005, on right bank 150 ft (46 m) downstream from Nebraska National Forest boundary, 2.1 mi (3.4 km) downstream from Merritt Dam, 6.5 mi (10.5 km) southwest of Burge, and 22 mi (35 km) southwest of Valentine.

DRAINAGE AREA.--660 mi² (1,710 km²), approximately, of which about 44 mi² (110 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--June 1947 to current year.

REVISED RECORDS.--WSP 1279: 1950(M), 1951(P). WDR NE-67,72: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,805.36 ft (855.074 m) National Geodetic Vertical Datum of 1929, (levels by Water and Power Resources Service, formerly Bureau of Reclamation).

REMARKS.--Records good. Natural flow affected by storage in Merritt Reservoir (station 06459300) 2.1 mi (3.4 km) upstream.

AVERAGE DISCHARGE.--16 years (1963-79), 150 ft³/s (4.248 m³/s), 108,700 acre-ft/yr (0.134 km³/yr), since storage and diversion began.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,170 ft³/s (89.8 m³/s) Feb. 7, 1963, gage height, 6.96 ft (2.121 m), release of storage behind temporary construction dike, from rating curve extended above 520 ft³/s (14.7 m³/s) on basis of slope-area measurement at gage height 5.39 ft (1.643 m); minimum daily, 5.8 ft³/s (0.16 m³/s) May 24-27, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 322 ft³/s (9.12 m³/s) occurred Mar. 18, 22, 23, 25-27, 29, 30, Apr. 1 and 2 at gage height of 2.27 ft (0.692 m); minimum daily, 12 ft³/s (0.34 m³/s) Oct. 6, May 6, 7, 14, Sept. 25-30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	92	236	238	231	231	320	14	137	207	18	16
2	13	128	237	238	234	231	286	14	138	193	18	16
3	13	219	238	238	235	231	252	14	138	148	18	16
4	13	232	238	238	231	231	252	13	137	112	16	16
5	13	233	238	238	231	231	251	13	142	73	16	16
6	12	233	238	238	234	231	248	12	134	63	16	15
7	13	235	238	238	231	231	249	12	125	68	16	15
8	14	235	238	238	231	231	249	13	107	38	16	15
9	13	235	238	238	228	231	219	13	110	19	16	15
10	14	236	238	235	228	231	202	14	111	18	16	15
11	14	238	238	235	231	244	202	13	113	18	16	15
12	22	238	238	235	228	278	142	13	113	17	16	16
13	134	238	238	235	228	290	99	13	116	17	16	15
14	202	238	238	235	228	314	99	12	112	17	16	15
15	202	238	238	235	228	314	99	53	105	17	16	15
16	202	238	238	235	228	314	65	87	125	18	16	15
17	202	205	238	235	228	318	39	86	133	17	16	15
18	205	207	238	233	230	319	40	113	135	17	15	15
19	205	208	238	235	228	318	41	133	142	17	16	15
20	205	200	238	236	231	318	41	131	146	17	15	15
21	205	205	238	235	231	318	41	140	124	17	15	15
22	208	205	238	236	231	319	42	144	156	17	15	15
23	208	205	238	235	234	319	41	147	191	17	15	15
24	208	178	238	231	233	318	41	145	210	19	15	13
25	208	205	238	233	231	318	32	142	209	18	16	12
26	211	222	238	235	231	320	15	137	190	18	15	12
27	211	236	238	235	224	318	15	138	204	18	15	12
28	211	235	238	235	235	318	14	140	245	18	16	12
29	211	235	238	235	---	319	14	121	237	18	16	12
30	214	235	238	235	---	319	14	139	218	18	16	12
31	214	---	238	235	---	318	---	137	---	18	16	---
TOTAL	4036	6487	7375	7306	6452	8841	3664	2316	4503	1307	494	436
MEAN	130	216	238	236	230	285	122	74.7	150	42.2	15.9	14.5
MAX	214	238	238	238	235	320	320	147	245	207	18	16
MIN	12	92	236	231	224	231	14	12	105	17	15	12
AC-FT	8010	12870	14630	14490	12800	17540	7270	4590	8930	2590	980	865

CAL YR 1978 TOTAL 60490 MEAN 166 MAX 362 MIN 12 AC-FT 120000
WTR YR 1979 TOTAL 53217 MEAN 146 MAX 320 MIN 12 AC-FT 105600

NIOBRARA RIVER BASIN

06461000 MINNECHADUZA CREEK AT VALENTINE, NE

LOCATION.--Lat 42°53'10", long 100°33'10", in SW1/4 sec.30, T.34 N., R.27 W., Cherry County, Hydrologic Unit 10150004, on right bank 500 ft (152 m) downstream from powerplant in city park at north edge of Valentine and 4 mi (6 km) upstream from mouth.

DRAINAGE AREA.--390 mi² (1,010 km²), approximately, of which about 200 mi² (520 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--December 1947 to current year.

REVISED RECORDS.--WDR NE-67: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 2,470 ft (753 m), from topographic map.

REMARKS.--Records good except those for winter period, which are fair. Flow regulated by powerplant 500 ft (152 m) above station.

AVERAGE DISCHARGE.--31 years (1948-79), 33.9 ft³/s (0.960 m³/s), 24,560 acre-ft/yr (30.3 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,100 ft³/s (31.2 m³/s) Mar. 22, 1960, gage height, 8.00 ft (2.438 m); minimum daily, 2.6 ft³/s (0.074 m³/s) Feb. 22, 1955.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 216 ft³/s (6.12 m³/s) June 27, gage height, 2.97 ft (0.905 m); maximum gage height, 3.16 ft (0.963 m) Feb. 5, backwater from ice; minimum daily discharge, 4.0 ft³/s (0.11 m³/s) Nov. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	23	27	21	14	39	51	35	32	75	26	12
2	18	23	19	14	30	25	63	37	29	74	26	14
3	20	26	4.5	21	20	32	62	38	30	46	26	16
4	21	21	24	17	27	19	65	37	26	54	21	16
5	18	32	33	27	38	18	63	37	27	43	23	17
6	19	19	34	19	32	50	62	35	21	36	24	23
7	20	24	27	27	32	54	42	35	18	38	18	16
8	18	21	26	23	31	67	58	34	35	35	18	25
9	24	28	23	22	40	54	49	69	25	40	18	36
10	20	25	23	23	32	55	49	49	24	35	19	27
11	20	24	30	20	30	58	49	59	29	29	18	15
12	24	23	29	21	30	67	63	63	30	28	19	24
13	22	26	29	26	34	69	66	64	20	26	14	29
14	20	21	27	25	30	69	75	62	20	24	16	25
15	27	24	23	21	33	62	81	55	17	25	17	22
16	17	30	30	21	28	59	82	59	37	21	19	18
17	25	28	25	31	34	59	75	75	40	32	19	18
18	17	24	24	19	20	67	71	45	26	23	20	18
19	24	29	34	25	30	73	71	49	33	38	20	16
20	23	4.0	31	18	28	67	51	45	45	17	19	20
21	21	25	28	22	31	63	53	42	36	18	24	18
22	23	30	29	17	31	63	43	40	30	26	23	18
23	20	33	30	17	31	62	47	41	36	17	20	18
24	23	21	26	19	25	67	49	38	64	30	20	18
25	29	23	24	19	20	63	49	34	82	18	22	18
26	12	31	29	18	22	62	41	36	101	29	20	18
27	29	31	25	21	24	61	41	34	156	26	20	15
28	24	18	25	22	35	49	40	28	115	22	19	15
29	23	29	29	18	---	63	44	26	101	30	20	17
30	25	33	20	26	---	53	39	32	93	32	19	18
31	23	---	21	28	---	62	---	33	---	26	14	---
TOTAL	666	749.0	808.5	668	812	1731	1674	1366	1378	1013	621	580
MEAN	21.5	25.0	26.1	21.5	29.0	55.8	55.8	44.1	45.9	32.7	20.0	19.3
MAX	29	33	34	31	40	73	82	75	156	75	26	36
MIN	12	4.0	4.5	14	14	18	39	26	17	17	14	12
AC-FT	1320	1490	1600	1320	1610	3430	3320	2710	2730	2010	1230	1150

CAL YR 1978 TOTAL 14599.7 MEAN 40.0 MAX 542 MIN 4.0 AC-FT 28960
WTR YR 1979 TOTAL 12066.5 MEAN 33.1 MAX 156 MIN 4.0 AC-FT 23930

06461500 NIOBRARA RIVER NEAR SPARKS, NE

LOCATION.--Lat 42°54'10", long 100°21'40", in SE1/4 sec.22, T.34 N., R.26 W., Cherry County, Hydrologic Unit 10150004, on left bank 18 ft (5 m) downstream from highway bridge, 2.2 mi (3.5 km) downstream from Big Beaver Creek, 5.5 mi (8.8 km) downstream from Minnechaduza Creek, and 6.5 mi (10.5 km) southwest of Sparks.

DRAINAGE AREA.--8,090 mi^2 (21,000 km^2), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1945 to current year. Monthly discharge only for some periods, published in WSP 1309.

REVISED RECORDS.--WSP 1209: 1947(M), 1948-50(P). WDR NE-67: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,287.57 ft (697.251 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for winter period, which are poor. Natural flow of stream affected by irrigation and power developments, storage in Box Butte Reservoir (station 06455000), and since May 1964 by storage in Merritt Reservoir (station 06459300).

AVERAGE DISCHARGE.--34 years, 778 ft^3/s (22.03 m^3/s), 563,700 acre-ft/yr (0.695 km^3/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,200 ft^3/s (289 m^3/s) Mar. 5, 1949, gage height, 6.73 ft (2.051 m), from rating curve extended above 3,800 ft^3/s (108 m^3/s); maximum gage height recorded, 10.06 ft (3.066 m) Feb. 7, 1973, ice jam; minimum daily discharge, 100 ft^3/s (2.83 m^3/s) Jan. 10, 1957.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,930 ft^3/s (54.7 m^3/s) Apr. 12, gage height, 3.80 ft (1.158 m) from sluicing at dam above station; maximum gage height, 6.48 ft (1.975 m) Mar. 12, ice jam; minimum daily discharge, 380 ft^3/s (10.8 m^3/s) Dec. 31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	454	698	700	410	840	920	1080	596	627	844	496	460
2	456	534	460	450	800	840	1090	594	634	834	518	457
3	471	667	440	490	840	800	1020	593	622	773	503	439
4	469	722	540	450	800	760	963	583	631	690	446	462
5	452	723	500	480	880	860	972	603	622	723	456	527
6	485	740	480	540	860	1080	952	615	605	584	462	452
7	479	720	450	500	940	1100	890	641	585	601	453	436
8	485	693	420	520	840	1140	894	641	588	616	458	520
9	497	710	560	500	820	1060	857	657	592	597	434	491
10	478	730	740	480	900	1060	811	701	629	539	476	505
11	469	755	960	520	820	1080	911	698	648	469	471	461
12	466	710	940	520	800	1100	958	629	688	431	492	511
13	502	704	840	500	820	986	816	662	685	440	474	437
14	637	692	860	470	860	996	787	654	667	453	435	448
15	676	686	840	540	840	1010	765	642	630	434	461	451
16	628	670	780	600	660	1020	739	720	835	418	480	447
17	628	669	740	700	700	1020	753	670	699	513	443	464
18	618	647	780	720	760	1050	751	656	684	524	454	465
19	647	600	720	700	800	1050	676	703	712	500	565	501
20	647	480	720	760	880	1000	634	657	814	472	553	449
21	637	526	740	800	900	1040	668	662	725	474	792	461
22	666	738	700	860	920	1070	683	663	792	447	660	465
23	708	739	600	760	800	1050	670	653	764	438	638	475
24	666	739	600	820	840	1050	646	637	802	462	590	459
25	687	718	580	780	920	1060	617	647	873	574	513	469
26	697	728	540	760	1000	1030	613	646	850	471	524	470
27	697	760	500	760	940	1040	564	656	957	580	509	473
28	690	718	500	760	900	997	593	664	1040	643	551	461
29	700	749	470	800	---	1010	598	646	867	538	513	452
30	694	770	420	800	---	1060	587	667	850	568	510	418
31	722	---	380	780	---	1060	---	650	---	487	468	---
TOTAL	18208	20735	19500	19530	23680	31399	23558	20106	21717	17137	15798	13986
MEAN	587	691	629	630	846	1013	785	649	724	553	510	466
MAX	722	770	960	860	1000	1140	1090	720	1040	844	792	527
MIN	452	480	380	410	660	760	564	583	585	418	434	418
AC-FT	36120	41130	38680	38740	46970	62280	46730	39880	43080	33990	31340	27740

CAL YR 1978 TOTAL 262369 MEAN 719 MAX 1610 MIN 345 AC-FT 520400
WTR YR 1979 TOTAL 245354 MEAN 672 MAX 1140 MIN 380 AC-FT 486700

NIOBRARA RIVER BASIN

06461500 NIOBRARA RIVER NEAR SPARKS, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976-1979.

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	TEMPER-ATURE (DEG C) (00010)
OCT 10...	1645	467	222	16.0
NOV 21...	1510	539	233	.5
DEC 11...	1600	963	230	.5
FEB 12...	1540	768	209	.5
MAR 06...	0935	1040	200	1.0
APR 17...	1705	688	260	19.5
JUN 19...	1610	742	219	21.0
JUL 10...	1410	601	219	28.0
AUG 20...	1625	528	212	19.5
SEP 10...	1650	482	249	23.5

06462000 NIOBRARA RIVER NEAR NORDEN, NE

LOCATION.--Lat 42°47'13", long 100°02'06", in N1/2SW1/4 sec.33, T.33 N., R.23 W., Keya Paha County, Hydrologic Unit 10150004, on left bank 60 ft (18 m) downstream from county road bridge, 1.5 mi (2.4 km) downstream from Fairfield Creek, and 6 mi (10 km) south of Norden.

DRAINAGE AREA.--8,390 mi² (21,700 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1952 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,109.93 ft (643.107 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for winter period, which are poor. Flow affected by regulation at powerplants, diversions for irrigation, return flow from irrigated areas, storage in Box Butte Reservoir (station 06455000), and since May 1964 storage in Merritt Reservoir (station 06459300).

AVERAGE DISCHARGE.--27 years, 863 ft³/s (24.44 m³/s), 625,200 acre-ft/yr (0.771 km³/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,380 ft³/s (209 m³/s) July 1, 1962, gage height, 7.10 ft (2.164 m), backwater from bridge in channel; maximum gage height, 10.24 ft (3.121 m) Mar. 11, 1966, ice jam and backwater from bridge in channel; minimum daily discharge, 130 ft³/s (3.68 m³/s) Jan. 10, 1957.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,580 ft³/s (44.7 m³/s) Apr. 12, gage height, 2.09 ft (0.637 m) from sluicing at dam above station; maximum gage height, 4.86 ft (1.481 m) Jan. 4, backwater from ice; minimum daily discharge, 450 ft³/s (12.7 m³/s) Dec. 31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	577	822	911	480	840	1080	1230	725	778	879	579	557
2	582	707	600	500	880	1000	1210	720	775	853	569	545
3	587	711	580	560	920	940	1150	736	764	813	573	544
4	589	845	660	620	880	900	1120	725	748	770	559	530
5	577	827	640	540	960	1040	1160	708	735	787	546	563
6	580	845	620	580	920	1160	1140	714	727	892	535	579
7	586	839	580	560	980	1250	1050	736	724	721	523	544
8	591	833	540	620	920	1300	1040	819	728	675	511	608
9	586	857	600	580	880	1250	1010	907	752	658	516	589
10	591	881	800	560	1020	1200	960	944	773	644	523	548
11	594	912	1060	680	900	1220	1120	877	734	614	551	554
12	602	881	1120	640	920	1260	1280	821	728	571	542	612
13	628	881	1040	600	940	1200	1070	808	728	558	541	655
14	750	833	900	560	960	1200	1020	790	707	559	548	611
15	794	851	940	660	880	1200	1010	794	688	578	553	603
16	788	857	900	800	760	1250	982	821	916	576	551	592
17	785	857	840	800	860	1250	917	831	819	603	537	574
18	784	797	940	860	960	1270	863	856	804	608	548	558
19	793	851	840	860	1040	1270	869	859	824	606	622	554
20	798	600	800	900	1000	1200	847	845	963	613	661	558
21	789	560	840	1000	1060	1230	808	831	836	589	824	554
22	807	731	800	1040	1100	1240	808	821	799	554	849	559
23	858	845	660	900	960	1200	786	815	884	546	765	549
24	826	881	660	960	1000	1160	786	801	881	565	712	554
25	821	863	640	940	1140	1160	808	785	1040	630	669	556
26	852	875	600	900	1200	1170	792	780	952	622	653	550
27	816	937	580	860	1160	1200	759	781	986	636	626	549
28	808	833	580	820	1060	1180	753	760	1120	758	620	550
29	804	911	540	840	---	1180	748	770	1060	619	647	553
30	804	931	500	820	---	1210	720	816	950	657	623	556
31	828	---	450	800	---	1210	---	805	---	610	582	---
TOTAL	22175	24854	22761	22840	27120	36580	28816	24801	24923	20364	18658	17008
MEAN	715	828	734	737	969	1180	961	800	831	657	602	567
MAX	858	937	1120	1040	1200	1300	1280	944	1120	892	849	655
MIN	577	560	450	480	760	900	720	708	688	546	511	530
AC-FT	43980	49300	45150	45300	53790	72560	57160	49190	49430	40390	37010	33740

CAL YR 1978 TOTAL 303906 MEAN 833 MAX 1650 MIN 450 AC-FT 602800
WTR YR 1979 TOTAL 290900 MEAN 797 MAX 1300 MIN 450 AC-FT 577000

06462000 NIOBRARA RIVER NEAR NORDEN, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1963-66, 1974 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: August 1974 to current year.
WATER TEMPERATURES: August 1974 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 489 micromhos June 29, 1976; minimum daily, 155 micromhos May 30, 1977.
WATER TEMPERATURES: Maximum, 30.0°C July 17, 1978; miniumum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 262 micromhos Sept. 1; minimum daily, 168 micromhos Jan. 27, Feb. 28.
WATER TEMPERATURES: Maximum, 21.0°C July 9, Aug. 29; minimum, 0.0°C on many days during winter period.

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	COLOR (PLAT-INUM-COBALT UNITS) (00080)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)
OCT 10...	1135	592	233	7.8	15.0	--	95	--	31
NOV 20...	1150	617	226	7.0	.5	--	100	--	33
DFC 13...	1045	937	232	7.5	.5	--	98	0	32
JAN 04...	1200	575	244	7.3	.5	--	110	1	36
FEB 14...	1030	927	203	7.4	1.0	--	88	0	29
MAR 07...	1140	1300	211	7.4	.5	--	99	--	33
APR 18...	1030	896	251	7.9	16.5	--	110	0	36
MAY 10...	1045	957	235	7.8	4.0	--	99	0	32
JUN 21...	0950	816	223	7.9	19.5	--	95	0	31
JUL 10...	1040	612	246	8.2	26.5	--	95	0	31
AUG 01...	1040	580	223	8.2	23.0	--	99	0	33
SEP 12...	1115	620	227	7.7	18.0	5	94	0	31

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)
OCT 10...	4.3	9.8	.4	6.2	110	7.3	1.3	.3	53
NOV 20...	4.7	11	.5	6.0	110	9.4	1.6	.3	57
DEC 13...	4.5	9.1	.4	6.5	110	10	1.7	.3	55
JAN 04...	5.0	9.8	.4	6.9	110	11	1.8	.3	57
FEB 14...	3.9	8.5	.4	5.1	98	6.8	1.4	.3	50
MAR 07...	4.0	8.3	.4	--	--	--	--	--	--
APR 18...	4.8	12	.5	7.9	120	9.6	2.5	.5	48
MAY 10...	4.6	10	.4	6.3	110	8.8	1.7	.4	46
JUN 21...	4.3	9.1	.4	6.4	110	8.7	1.4	.4	47
JUL 10...	4.3	9.7	.4	7.8	120	11	1.8	.4	55
AUG 01...	4.0	9.0	.4	7.0	110	7.3	1.3	.4	58
SEP 12...	4.1	10	.4	6.5	110	10	1.4	.3	55

06462000 NIOBRARA RIVER NEAR NORDEN, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P) (00666)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)
OCT									
10...	--	--	--	.78	--	.06	40	20	3
NOV									
20...	--	--	--	.72	--	.10	40	40	8
DEC									
13...	188	.26	476	.59	--	.10	30	30	3
JAN									
04...	197	.27	306	.72	--	.13	30	80	0
FEB									
14...	167	.23	418	.70	--	.12	30	60	10
MAR									
07...	--	--	--	--	--	.82	--	50	0
APR									
18...	195	.27	472	.23	--	.07	80	30	0
MAY									
10...	177	.24	457	.22	--	.06	40	10	0
JUN									
21...	176	.24	388	.27	--	.08	40	10	0
JUL									
10...	194	.26	321	.09	--	.06	50	20	<1
AUG									
01...	186	.25	291	.01	--	.02	60	20	2
SEP									
12...	185	.25	310	.12	.10	.04	30	30	5

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	229	210	210	205	178	236	242	238	244	234	225	262
2	230	212	200	245	187	212	228	255	245	219	225	227
3	220	214	250	245	189	218	252	248	236	213	227	230
4	222	217	250	233	217	218	250	235	242	217	226	225
5	198	218	240	222	222	220	247	233	235	214	225	224
6	228	213	240	232	228	200	227	222	242	227	225	228
7	225	247	250	223	218	205	230	233	224	212	215	229
8	234	217	250	228	220	205	246	252	226	215	227	228
9	229	218	240	199	215	195	237	254	230	222	227	224
10	225	207	240	225	220	203	228	227	231	218	227	226
11	230	207	240	234	220	212	247	247	232	213	218	224
12	210	204	220	209	198	198	235	244	230	211	178	218
13	221	204	230	208	204	205	238	242	238	213	218	228
14	209	202	240	208	220	215	258	245	231	211	225	226
15	207	203	225	210	220	219	255	226	222	212	237	225
16	203	211	220	207	205	206	222	224	231	213	227	230
17	211	208	230	205	211	212	220	224	248	206	229	226
18	216	210	230	210	218	219	227	247	225	229	226	226
19	205	227	220	209	213	229	238	237	229	219	227	233
20	208	228	220	209	228	215	250	236	231	212	222	221
21	210	218	215	202	218	218	253	236	231	213	224	227
22	213	205	235	199	220	218	248	226	230	180	213	225
23	208	214	210	201	217	205	250	228	230	215	222	227
24	205	208	225	204	218	224	247	227	219	216	228	221
25	208	206	225	204	220	230	244	228	225	225	228	228
26	208	208	250	206	228	223	239	227	232	217	227	230
27	210	197	240	168	218	223	249	227	242	213	215	224
28	205	206	225	205	168	223	223	228	231	213	227	227
29	205	197	225	209	---	225	237	231	192	213	229	222
30	212	200	230	205	---	220	222	238	232	221	226	225
31	208	---	255	206	---	223	---	241	---	216	229	---

06462000 NIOBRARA RIVER NEAR NORDEN, NE--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16.0	11.0	.0	.0	.0	.0	6.0	12.0	12.0	16.0	18.0	20.0
2	15.0	10.0	.0	.0	.0	2.0	10.0	14.0	12.0	19.0	17.0	18.0
3	12.0	11.0	.0	.0	.0	2.0	9.0	13.0	13.0	20.0	17.0	18.0
4	15.0	10.0	.0	.0	.0	3.0	7.0	14.0	12.0	19.0	20.0	17.0
5	14.0	9.0	.0	.0	.0	2.0	8.0	15.0	15.0	17.0	19.0	16.0
6	17.0	9.0	.0	.0	.0	3.0	8.0	10.0	11.0	15.0	19.0	18.0
7	16.0	8.0	.0	.0	.0	3.0	12.0	13.0	14.0	16.0	18.0	19.0
8	16.0	6.0	.0	.0	.0	1.0	12.0	15.0	15.0	19.0	18.0	20.0
9	15.0	9.0	.0	.0	.0	3.0	10.0	16.0	15.0	21.0	19.0	14.0
10	14.0	5.0	.0	.0	.0	3.0	7.0	16.0	14.0	20.0	17.0	15.0
11	16.0	1.0	.0	.0	.0	3.0	8.0	17.0	15.0	15.0	17.0	15.0
12	19.0	1.0	.0	.0	.0	3.0	8.0	16.0	11.0	17.0	18.0	14.0
13	10.0	8.0	.0	.0	.0	3.0	6.0	16.0	14.0	16.0	19.0	14.0
14	14.0	2.0	.0	.0	.0	.0	8.0	17.0	13.0	16.0	12.0	12.0
15	14.0	2.0	.0	.0	.0	1.0	7.0	15.0	18.0	19.0	19.0	12.0
16	12.0	3.0	.0	.0	.0	2.0	7.0	16.0	14.0	20.0	19.0	14.0
17	12.0	2.0	.0	.0	.0	3.0	10.0	17.0	10.0	20.0	18.0	12.0
18	10.0	1.0	.0	.0	.0	3.0	7.0	16.0	8.0	17.0	19.0	15.0
19	14.0	1.0	.0	.0	.0	4.0	10.0	17.0	7.0	17.0	19.0	12.0
20	7.0	.0	.0	.0	.0	6.0	10.0	13.0	13.0	16.0	20.0	11.0
21	14.0	.0	.0	.0	1.0	6.0	11.0	14.0	15.0	14.0	20.0	12.0
22	12.0	.0	.0	.0	.0	4.0	16.0	15.0	13.0	18.0	19.0	13.0
23	11.5	.0	.0	.0	.0	6.0	17.0	17.0	11.0	15.0	18.0	18.0
24	11.0	.0	.0	.0	.0	7.0	15.0	16.0	15.0	16.0	18.0	12.0
25	8.0	1.0	.0	.0	.0	6.0	16.0	15.0	13.0	17.0	17.0	12.0
26	9.0	1.0	.0	.0	.0	7.0	15.0	18.0	12.0	16.0	18.0	12.0
27	11.0	.0	.0	.0	.0	6.0	15.0	17.0	14.0	19.0	19.0	12.0
28	8.0	.0	.0	.0	.0	10.0	16.0	17.0	13.0	16.0	18.0	12.0
29	7.0	.0	.0	.0	---	9.0	16.0	16.0	10.0	19.0	21.0	12.0
30	16.0	.0	.0	.0	---	8.0	17.0	15.0	14.0	17.0	20.0	13.0
31	12.0	---	.0	.0	---	7.0	---	14.0	---	16.0	19.0	---

06462500 PLUM CREEK AT MEADVILLE, NE

LOCATION.--Lat 42°45'05", long 99°52'05", in NE1/4NW1/4 sec.14, T.32 N., R.22 W., Brown County, Hydrologic Unit 10150004, on left bank 0.4 mi (0.6 km) upstream from county road bridge, 1 mi (2 km) upstream from mouth, 1 mi (2 km) southwest of Meadville, and 17 mi (27 km) north of Ainsworth.

DRAINAGE AREA.--600 mi² (1,550 km²), approximately, of which about 340 mi² (880 km²) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--December 1947 to September 1975, October 1976 to current year. Prior to October 1962, published as "near Meadville."

REVISED RECORDS.--WSP 1729: 1953. WSP 1917: 1953.

GAGE.--Water-stage recorder. Altitude of gage is 2,035 ft (620.3 m), from topographic map. Prior to Nov. 25, 1962, at site 6.5 mi (10.5 km) upstream at different datum. Nov. 25, 1962, to Nov. 14, 1966, at present site at datum 1.0 ft (0.30 m) higher.

REMARKS.--Records fair except those for winter periods, which are poor.

AVERAGE DISCHARGE.--30 years (1948-75,1979), 108 ft³/s (3.059 m³/s), 78,250 acre-ft/yr (96.5 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,070 ft³/s (58.6 m³/s) Sept. 18, 1967, gage height, 4.98 ft (1.518 m); maximum gage height observed, 7.54 ft (2.298 m) Dec. 6, 1964, backwater from ice, present datum; minimum daily discharge, 15 ft³/s (0.42 m³/s) Feb. 19, 1955.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 232 ft³/s (6.57 m³/s) Apr. 15, gage height, 0.96 ft (0.293 m), no peak above base of 300 ft³/s (8.50 m³/s); maximum gage height, 2.61 ft (0.796 m) Feb. 18, backwater from ice; minimum daily discharge, 61 ft³/s (1.73 m³/s) Aug. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	93	91	97	78	88	99	161	107	101	86	100	66
2	93	91	94	86	86	100	157	107	93	81	89	70
3	93	91	96	88	92	100	161	104	91	91	81	68
4	93	91	98	86	90	94	172	103	87	86	78	62
5	93	91	96	86	96	100	173	104	82	102	83	65
6	93	91	96	86	94	100	172	105	88	102	81	70
7	93	91	94	90	100	104	159	104	88	112	73	81
8	94	91	94	90	96	105	150	113	97	102	69	84
9	95	91	92	88	100	104	146	125	101	91	63	87
10	95	91	100	90	106	107	138	124	106	81	61	87
11	95	92	110	88	98	106	158	123	97	76	67	77
12	96	91	112	86	104	110	178	126	91	86	68	120
13	95	93	110	86	110	118	208	125	90	75	63	139
14	95	92	108	80	112	117	219	117	89	76	62	108
15	94	91	106	84	104	114	218	114	81	80	69	107
16	93	92	100	88	106	114	203	112	84	78	71	104
17	94	92	104	88	100	117	186	107	103	83	66	99
18	94	91	96	90	106	126	168	110	95	91	69	96
19	93	90	93	90	110	122	155	126	102	87	76	95
20	93	88	93	88	116	115	144	125	104	82	82	103
21	93	84	93	88	120	122	132	130	96	88	80	98
22	93	96	93	90	125	131	125	119	102	92	82	103
23	94	94	92	88	116	136	120	113	107	78	75	103
24	93	96	86	90	110	132	116	104	117	73	73	105
25	92	96	90	88	114	137	115	100	117	87	75	121
26	93	97	88	88	125	145	111	93	112	118	71	106
27	92	96	86	94	135	144	109	90	112	113	66	102
28	92	96	38	90	98	145	107	90	107	100	65	91
29	91	97	82	88	---	155	107	89	102	95	67	89
30	91	96	80	86	---	154	104	112	91	96	74	89
31	91	---	78	84	---	157	---	115	---	99	72	---
TOTAL	2892	2770	2945	2710	2957	3730	4572	3436	2933	2787	2271	2795
MEAN	93.3	92.3	95.0	87.4	106	120	152	111	97.8	89.9	73.3	93.2
MAX	96	97	112	94	135	157	219	130	117	118	100	139
MIN	91	84	78	78	86	94	104	89	81	73	61	62
AC-FT	5740	5490	5840	5380	5870	7400	9070	6820	5820	5530	4500	5540

CAL YR 1978 TOTAL 42339 MEAN 116 MAX 400 MIN 76 AC-FT 83980
WTR YR 1979 TOTAL 36798 MEAN 101 MAX 219 MIN 61 AC-FT 72990

06462500 PLUM CREEK AT MEADVILLE, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water year 1977 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	COLOR (PLAT-INUM-COBALT UNITS) (00080)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)
OCT										
12...	1050	97	182	8.0	12.0	--	73	0	24	3.1
NOV										
22...	1130	102	178	7.3	.5	--	73	0	24	3.1
DEC										
11...	1430	126	169	7.5	.5	--	72	0	24	3.0
JAN										
31...	1040	93	175	7.3	.5	--	73	0	24	3.2
FEB										
12...	1315	114	171	7.1	.5	--	70	0	23	3.0
MAR										
28...	1030	146	195	7.8	7.0	--	76	0	25	3.4
APR										
16...	1310	208	265	7.9	16.5	--	97	0	31	4.8
MAY										
31...	1030	123	173	7.8	15.0	--	75	0	25	3.1
JUN										
19...	1235	100	178	8.1	20.5	--	79	0	26	3.4
JUL										
12...	1130	89	192	8.1	27.5	--	72	0	24	3.0
AUG										
07...	1000	83	190	8.0	25.0	--	78	0	26	3.2
22...	1110	91	177	8.3	20.5	--	69	0	23	2.8
SEP										
10...	1445	84	190	7.8	24.5	5	75	0	25	3.0
26...	1035	96	192	8.2	18.0	--	72	0	24	3.0

DATE	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE (MG/L AS HCO3) (00440)	CAR-BONATE (MG/L AS CO3) (00445)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)
OCT										
12...	7.0	.4	5.5	--	--	87	5.8	1.5	.4	56
NOV										
22...	6.2	.3	5.1	--	--	81	3.6	1.0	.3	55
DEC										
11...	6.3	.3	4.9	--	--	80	6.5	1.4	.3	54
JAN										
31...	6.5	.3	4.9	--	--	84	4.4	1.2	.3	54
FEB										
12...	5.9	.3	5.0	--	--	84	4.5	1.2	.3	56
MAR										
28...	9.7	.5	6.2	--	--	94	5.5	2.4	.5	47
APR										
16...	17	.8	8.4	--	--	130	7.3	3.3	.8	47
MAY										
31...	6.4	.3	5.3	--	--	78	8.0	1.2	.3	52
JUN										
19...	7.1	.3	5.3	--	--	80	6.4	1.1	.3	53
JUL										
12...	6.8	.3	6.0	--	--	87	7.1	1.1	.3	59
AUG										
07...	6.5	.3	5.6	110	0	90	9.6	1.1	--	--
22...	6.8	.4	5.6	--	--	80	6.0	1.3	.3	59
SEP										
10...	7.3	.4	5.8	--	--	83	6.4	1.0	.3	58
26...	6.6	.3	5.8	110	0	90	8.0	1.0	.3	55

06462500 PLUM CREEK AT MEADVILLE, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P) (00666)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)
OCT										
12...	--	--	--	--	.66	--	.09	40	30	2
NOV										
22...	--	--	--	--	.88	--	.11	30	30	2
DEC										
11...	--	149	.21	52.1	.90	--	.11	30	40	4
JAN										
31...	--	153	.21	38.4	.96	--	.12	30	30	4
FEB										
12...	--	154	.21	47.4	.96	--	.12	40	40	4
MAR										
28...	--	159	.22	62.7	.60	--	.11	60	80	2
APR										
16...	--	199	.27	112	.31	--	.11	70	70	6
MAY										
31...	--	151	.21	50.1	.54	--	.10	60	30	0
JUN										
19...	--	158	.21	41.6	.62	--	.11	30	40	0
JUL										
12...	--	161	.22	38.7	.36	--	.03	20	20	2
AUG										
07...	--	--	--	--	.47	--	--	--	--	--
22...	--	155	.21	38.1	.48	--	.07	20	20	2
SEP										
10...	--	159	.22	36.1	.46	.11	.04	20	40	4
26...	164	160	.22	42.5	.55	--	.14	--	--	--

06463500 LONG PINE CREEK NEAR RIVERVIEW, NE

LOCATION.--Lat 42°41'20", long 99°40'43", in SE1/4NE1/4 sec.5, T.31 N., R.20 W., Brown County, Hydrologic Unit 10150004, on right bank 7 ft (2 m) downstream from county road bridge, 1 mi (2 km) downstream from Bone Creek, and 5.5 mi (8.8 km) southwest of Riverview.

DRAINAGE AREA.--390 mi² (1,010 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1948 to January 1954, September 1954 to current year.

REVISED RECORDS.--WSP 1729: 1952(M).

GAGE.--Water-stage recorder. Datum of gage is 1,983.34 ft (604.522 m) National Geodetic Vertical Datum of 1929, (levels by Water and Power Resources Service, formerly Bureau of Reclamation). Prior to Dec. 7, 1962, at site 100 ft (30 m) upstream at present datum.

REMARKS.--Records good except those above 250 ft³/s (7.08 m³/s), which are poor. Flow includes return water from Ainsworth Irrigation District since 1965.

AVERAGE DISCHARGE.--30 years (1948-53, 1954-79), 137 ft³/s (3.880 m³/s), 99,260 acre-ft/yr (0.122 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,650 ft³/s (273 m³/s) July 1, 1962, gage height, 15.68 ft (4.779 m), backwater from fallen bridge, from rating curve extended above 3,600 ft³/s (102 m³/s) on basis of slope-area measurement of peak flow; minimum daily, 44 ft³/s (1.25 m³/s) Jan. 10, 1963.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,100 ft³/s (31.2 m³/s) Sept. 8, gage height, 6.37 ft (1.942 m), from floodmark, no other peak above base of 400 ft³/s (11.3 m³/s); minimum daily, 108 ft³/s (3.06 m³/s) Dec. 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	153	137	139	116	140	143	167	158	187	162	180	173
2	153	133	130	120	151	150	169	155	180	159	176	167
3	154	133	135	130	140	135	171	148	178	155	176	173
4	145	132	140	137	150	134	173	156	177	148	174	180
5	146	132	138	140	150	143	173	159	176	156	176	189
6	143	128	136	131	147	150	164	158	173	161	177	169
7	144	130	134	140	147	162	155	150	180	161	173	173
8	142	130	130	135	150	167	150	163	173	151	175	213
9	139	133	125	140	161	175	148	173	181	142	175	148
10	133	134	134	145	142	161	150	172	184	142	169	138
11	137	130	136	150	142	168	173	169	178	139	168	162
12	136	136	139	140	139	203	177	166	176	145	171	261
13	134	135	138	135	137	226	178	164	173	139	171	207
14	135	133	139	125	135	188	174	161	172	148	173	170
15	135	135	140	135	127	166	166	162	170	152	170	160
16	133	132	140	140	132	162	163	162	168	148	176	156
17	137	133	141	140	120	167	159	161	167	159	183	152
18	138	130	143	145	131	173	160	161	168	161	178	153
19	130	128	141	140	137	158	157	164	175	173	186	150
20	130	130	140	145	139	158	155	178	176	169	180	152
21	131	133	139	150	142	178	157	176	171	167	182	151
22	136	133	140	155	145	229	151	170	178	163	169	150
23	131	135	130	140	140	227	137	168	181	167	166	156
24	137	134	108	145	134	193	148	165	175	169	169	158
25	140	137	137	140	139	188	157	170	206	180	164	156
26	140	139	125	140	150	176	151	174	183	173	164	154
27	137	137	125	135	158	175	150	178	187	178	166	151
28	133	134	135	130	143	172	151	179	185	187	169	151
29	141	137	137	125	---	169	153	192	168	178	171	147
30	139	139	120	135	---	171	151	209	162	191	174	144
31	138	---	114	130	---	173	---	198	---	177	176	---
TOTAL	4300	4002	4148	4254	3968	5340	4788	5221	5308	5000	5377	4964
MEAN	139	133	134	137	142	172	160	168	177	161	173	165
MAX	154	139	143	155	161	229	178	209	206	191	186	261
MIN	130	128	108	116	120	134	137	148	162	139	164	138
AC-FT	8530	7940	8230	8440	7870	10590	9500	10360	10530	9920	10670	9850

CAL YR 1978 TOTAL 59667 MEAN 163 MAX 1060 MIN 94 AC-FT 118300
WTR YR 1979 TOTAL 56670 MEAN 155 MAX 261 MIN 108 AC-FT 112400

06463500 LONG PINE CREEK NEAR RIVERVIEW, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water year 1977 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	COLOR (PLATINUM-COBALT UNITS) (00080)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)
OCT										
12...	1345	141	173	7.8	12.5	--	65	0	21	3.1
NOV										
22...	1445	140	176	7.5	3.0	--	68	0	22	3.1
DEC										
11...	1120	136	176	7.5	3.5	--	71	0	23	3.3
JAN										
31...	1240	137	171	7.1	1.0	--	52	0	16	3.0
FEB										
12...	1040	138	174	7.2	2.0	--	68	0	22	3.2
MAR										
28...	1340	172	175	7.8	12.0	--	69	0	22	3.3
APR										
16...	1045	162	184	7.6	14.5	--	69	0	22	3.4
MAY										
31...	1300	196	234	7.9	16.5	--	72	0	23	3.6
JUN										
19...	1020	174	172	7.6	18.5	--	74	0	23	3.4
JUL										
12...	1440	139	174	7.8	28.0	--	64	0	21	2.9
AUG										
07...	1530	178	179	8.0	29.0	--	71	0	23	3.4
22...	1440	171	169	7.9	21.0	--	66	0	21	3.2
SEP										
10...	1125	139	201	7.3	20.5	10	68	0	22	3.1
26...	1550	164	182	7.8	23.0	--	66	0	21	3.2

DATE	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	BICARBONATE (MG/L AS HCO3) (00440)	CARBONATE (MG/L AS CO3) (00445)	ALKALINITY (MG/L AS CACO3) (00410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)
OCT										
12...	6.9	.4	5.3	--	--	77	6.9	2.4	.3	54
NOV										
22...	6.9	.4	5.1	--	--	71	5.1	2.3	.3	53
DEC										
11...	6.8	.4	5.2	--	--	75	5.0	2.3	.2	55
JAN										
31...	7.1	.4	4.7	--	--	62	4.2	2.2	.2	54
FEB										
12...	6.8	.4	5.0	--	--	80	4.0	2.4	.2	57
MAR										
28...	8.7	.5	6.4	--	--	71	5.0	3.2	.3	51
APR										
16...	9.0	.5	5.8	--	--	81	4.9	3.0	.3	54
MAY										
31...	14	.7	14	--	--	87	9.1	11	.4	48
JUN										
19...	7.6	.4	5.4	--	--	71	6.2	1.9	.3	50
JUL										
12...	6.5	.4	5.7	--	--	75	6.4	2.0	.3	56
AUG										
07...	7.1	.4	5.8	100	0	82	5.5	2.5	--	--
22...	6.8	.4	6.2	--	--	73	6.3	1.9	.3	52
SEP										
10...	7.6	.4	6.0	--	--	78	11	1.5	.3	55
26...	7.8	.4	6.2	100	0	82	7.3	1.8	.3	52

06463500 LONG PINE CREEK NEAR RIVERVIEW, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P) (00666)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)
OCT										
12...	--	--	--	--	1.3	--	.17	30	30	2
NOV										
22...	--	--	--	--	1.6	--	.19	40	30	1
DEC										
11...	--	147	.21	56.2	1.6	--	.18	30	30	2
JAN										
31...	--	135	.18	49.9	1.5	--	--	30	0	0
FEB										
12...	--	156	.21	58.1	1.6	--	.17	40	30	4
MAR										
28...	--	149	.20	69.2	1.4	--	.21	60	20	3
APR										
16...	--	157	.21	68.7	1.2	--	.23	40	60	3
MAY										
31...	--	179	.24	94.7	.88	--	.65	30	60	0
JUN										
19...	--	145	.20	68.1	1.0	--	.19	40	40	0
JUL										
12...	--	149	.20	55.9	.79	--	.01	20	20	1
AUG										
07...	--	--	--	--	.89	--	--	--	--	--
22...	--	146	.20	67.4	.93	--	.19	30	20	1
SEP										
10...	--	153	.21	57.4	1.0	.30	.02	20	20	2
26...	146	154	.20	64.6	1.1	--	.15	--	--	--

06464500 KEYA PAHA RIVER AT WEWELA, SD

LOCATION.--Lat 43°01'42", long 99°46'45", in SE1/4 sec.24, T.95 N., R.76 W., Tripp County, Hydrologic Unit 10150006, on left bank 13 ft (4 m) downstream from bridge on U.S. Highway 183, 1.0 mi (1.6 km) north of Wewela, 4.5 mi (7.2 km) upstream from Holt Creek, and 11.5 mi (18.5 km) downstream from Lost Creek.

DRAINAGE AREA.--1,070 mi² (2,770 km²), approximately.

PERIOD OF RECORD.--November 1937 to September 1940, October 1947 to current year. Monthly discharge only for October 1947, published in WSP 1309.

GAGE.--Water-stage recorder. Datum of gage is 2,049.78 ft (624.773 m) National Geodetic Vertical Datum of 1929. Prior to June 21, 1957, nonrecording gage at site 13 ft (4.0 m) upstream at same datum.

REMARKS.--Records good except those for winter periods, which are poor. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--34 years (water years 1939-40, 1948-79), 68.3 ft³/s (1.934 m³/s), 49,480 acre-ft/yr (61.0 hm³/yr); median of yearly mean discharges, 58 ft³/s (1.643 m³/s), 42,000 acre-ft/yr (51.8 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,430 ft³/s (154 m³/s) Mar. 31, 1952, gage height, 13.08 ft (3.987 m); maximum gage height, 13.5 ft (4.11 m) Mar. 25, 1950, from floodmark (backwater from ice); no flow Jan. 10 to Feb. 15, 1949, Aug. 19 to Sept. 14, 1976.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 250 ft³/s (7.08 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Mar. 14	1245	ice jam		*4.39	1.338	June 21	0345	485	13.7	3.50	1.067
Mar. 24	1345	485	13.7	3.53	1.076	June 26	1130	260	7.4	2.62	0.799
June 17	0645	*707	20.0	4.11	1.253						

Minimum daily discharge, 3.1 ft³/s (0.088 m³/s) Jan. 13, 14, 23-26, Jan. 30 to Feb. 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	27	25	3.6	3.1	11	172	74	54	127	54	21
2	23	27	24	3.8	3.1	12	157	72	51	107	49	21
3	24	27	24	3.8	3.2	14	171	70	51	86	44	19
4	25	27	25	3.8	3.3	15	171	67	51	77	39	18
5	25	26	25	3.7	3.5	16	168	65	50	75	36	18
6	25	27	24	3.8	3.8	18	159	60	45	77	34	18
7	26	27	23	3.8	4.0	20	151	61	42	77	31	18
8	26	28	23	3.9	3.9	30	150	70	40	74	30	25
9	26	28	23	3.9	4.0	50	147	91	44	69	30	29
10	26	28	24	3.7	4.3	80	143	115	50	66	29	23
11	25	28	25	3.5	4.5	95	148	128	48	59	28	21
12	25	27	25	3.3	4.8	90	188	129	47	55	29	24
13	26	27	25	3.1	5.0	80	237	128	82	53	28	25
14	26	25	26	3.1	5.0	70	248	120	39	53	28	24
15	26	26	25	3.3	4.8	60	244	105	36	57	27	23
16	26	27	25	3.5	5.0	70	232	95	143	56	28	22
17	26	27	24	3.5	5.2	100	207	86	572	55	26	21
18	26	26	24	3.5	5.6	200	189	84	325	53	26	20
19	26	25	24	3.5	6.0	276	159	82	197	50	27	19
20	26	24	24	3.6	6.2	259	140	81	160	48	28	18
21	26	25	24	3.5	6.0	311	129	82	301	49	29	18
22	26	25	24	3.2	6.0	349	122	76	154	51	29	17
23	26	26	24	3.1	6.0	373	115	72	135	60	28	17
24	27	26	23	3.1	5.8	376	111	68	164	75	27	17
25	27	27	23	3.1	6.0	362	102	70	158	66	26	17
26	26	26	23	3.1	7.0	324	95	67	105	57	26	16
27	27	25	22	3.2	8.0	273	91	65	136	55	25	16
28	27	25	15	3.2	9.0	199	86	61	168	57	25	16
29	27	26	7.0	3.2	---	204	84	60	163	81	25	17
30	27	25	5.0	3.1	---	194	80	62	149	75	24	17
31	27	---	3.5	3.1	---	182	---	60	---	60	23	---
TOTAL	800	790	680.5	106.6	142.1	4713	4596	2526	3800	2060	938	595
MEAN	25.8	26.3	22.0	3.44	5.08	152	153	81.5	127	66.5	30.3	19.8
MAX	27	28	26	3.9	9.0	376	248	129	572	127	54	29
MIN	23	24	3.5	3.1	3.1	11	80	60	36	48	23	16
AC-FT	1590	1570	1350	211	282	9350	9120	5010	7540	4090	1860	1180

CAL YR 1978 TOTAL 40109.5 MEAN 110 MAX 2500 MIN 3.5 AC-FT 79560
WTR YR 1979 TOTAL 21747.2 MEAN 59.6 MAX 572 MIN 3.1 AC-FT 43140

06464900 KEYA PAHA RIVER NEAR NAPER, NE

LOCATION.--Lat 42°55'00", long 99°05'50", in SE1/4SE1/4 sec.17, T.34 N., R.15 W., Boyd County, Hydrologic Unit 10150006, on left bank 70 ft (21 m) upstream from highway bridge, 3.3 mi (5.3 km) south of Naper, and 8.6 mi (13.8 km) upstream from mouth.

DRAINAGE AREA.--1,630 mi^2 (4,220 km^2), approximately.

PERIOD OF RECORD.--October 1957 to current year.

REVISED RECORDS.--WSP 1709: 1959(M).

GAGE.--Water-stage recorder. Altitude of gage is 1,680 ft (512 m), from topographic map. Prior to May 2, 1958, nonrecording gage at same site and datum.

REMARKS.--Records good except those for winter period, which are poor. Minor diversions for irrigation above station.

AVERAGE DISCHARGE.--22 years, 130 ft^3/s (3.682 m^3/s), 94,180 acre-ft/yr (0.116 km^3/yr); median of yearly mean discharges, 116 ft^3/s (3.285 m^3/s), 84,000 acre-ft/yr (0.104 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,280 ft^3/s (263 m^3/s) July 1, 1962, gage height, 10.91 ft (3.325 m); maximum gage height, 13.34 ft (4.066 m) Mar. 23, 1960, backwater from ice; no flow July 22-30, Aug. 10, 11, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,080 ft^3/s (30.6 m^3/s) June 22 at 1130, gage height, 6.14 ft (1.871 m), no other peak above base of 900 ft^3/s (25.5 m^3/s); maximum gage height, 9.74 ft (2.969 m) from outside floodmark, probably occurred Mar. 16, ice jam; minimum daily discharge, 14 ft^3/s (0.40 m^3/s) Jan. 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	62	66	16	18	24	322	128	121	263	88	22
2	32	71	64	17	17	23	310	123	121	196	71	22
3	34	63	60	18	19	26	278	122	105	149	57	24
4	36	53	64	16	18	30	262	120	92	204	45	23
5	37	50	62	17	21	35	284	114	82	154	38	21
6	39	50	60	18	20	38	281	115	107	184	35	24
7	42	52	60	19	23	43	259	115	115	182	32	22
8	43	61	62	20	21	44	252	130	83	148	31	22
9	45	62	64	19	23	46	222	204	84	118	29	21
10	46	62	66	18	26	60	252	246	110	100	25	23
11	47	62	64	19	24	120	351	274	92	87	22	36
12	53	63	66	17	25	160	527	338	73	73	21	53
13	58	62	64	15	27	180	608	284	63	65	22	40
14	59	60	66	14	29	150	455	259	56	62	26	37
15	61	54	64	17	26	120	387	235	49	147	28	35
16	59	56	62	20	22	100	540	214	61	131	28	34
17	59	60	60	19	21	150	568	198	72	105	29	31
18	58	58	62	20	24	250	489	189	433	93	28	29
19	57	56	60	19	25	323	398	184	328	84	33	27
20	57	52	58	20	22	222	387	181	481	140	37	26
21	57	54	60	21	23	256	296	178	314	90	36	25
22	57	56	58	22	23	459	274	163	608	74	34	25
23	61	60	60	19	20	408	252	150	390	67	33	24
24	63	64	62	20	19	319	246	130	372	84	30	24
25	61	66	60	19	21	379	222	115	520	90	27	24
26	62	64	52	20	24	380	182	107	444	89	26	24
27	62	62	40	19	23	329	151	102	371	78	25	23
28	58	64	30	20	22	305	135	92	305	111	28	25
29	50	66	23	19	---	304	130	87	252	132	27	24
30	47	68	19	18	---	349	112	150	257	119	25	25
31	48	---	15	17	---	312	---	148	---	114	23	---
TOTAL	1579	1793	1733	572	626	5944	9432	5195	6561	3733	1039	815
MEAN	50.9	59.8	55.9	18.5	22.4	192	314	168	219	120	33.5	27.2
MAX	63	71	66	22	29	459	608	338	608	263	88	53
MIN	31	50	15	14	17	23	112	87	49	62	21	21
AC-FT	3130	3560	3440	1130	1240	11790	18710	10300	13010	7400	2060	1620

CAL YR 1978 TOTAL 72267.0 MEAN 198 MAX 4910 MIN 9.5 AC-FT 143300
WTR YR 1979 TOTAL 39022.0 MEAN 107 MAX 608 MIN 14 AC-FT 77400

06465000 NIOBRARA RIVER NEAR SPENCER, NE

LOCATION.--Lat 42°48'33", long 98°30'19", in SE1/4NE1/4 sec.30, T.33 N., R.11 W., Boyd County, Hydrologic Unit 10150007, at Spencer powerplant dam 5 mi (8 km) southeast of Spencer.

DRAINAGE AREA.--12,100 mi^2 (31,300 km^2), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May to December 1908 (gage heights only); August 1913 to September 1914; October to December 1914, April to September 1915 (gage heights only); August 1927 to September 1936, June 1940 to current year. Published as "near Lynch" 1913-15. Monthly discharge only for some periods, published in WSP 1309.

REVISED RECORDS.--WDR NE-67: Drainage area.

GAGE.--Water-stage recorder and hourly log of power plant operation. Datum of gage is 1,473.67 ft (449.175 m) National Geodetic Vertical Datum of 1929. Elevation of taintor gate sill, 1,491.12 ft (454.493 m) National Geodetic Vertical Datum of 1929. Prior to December 1908, nonrecording gage on former highway bridge 275 ft (83.8 m) downstream and Aug. 1, 1913, to Sept. 30, 1915, nonrecording gage at highway bridge 10 mi (16 km) downstream at different datums. Aug. 1, 1927 to Sept. 30, 1936, and June 14, 1940, to Sept. 30, 1944, discharge computed as flow through powerhouse and over dam. Oct. 1, 1944, to Nov. 10, 1954, water-stage recorder at site 275 ft (83.8 m) downstream at datum 4.98 ft (1.518 m) higher, and Nov. 11, 1954, to Sept. 30, 1957, at site 0.3 mi (0.5 km) downstream at datum 9.78 ft (2.981 m) lower. Oct. 1, 1957, to Oct. 21, 1958, discharge computed as flow through powerhouse and over dam. Oct. 28, 1958, to Aug. 13, 1963, water-stage recorder at site 225 ft (68.6 m) downstream at present datum. Aug. 14, 1963, gage moved to present site with discharge computed as flow through powerhouse and over dam.

REMARKS.--Records good. Natural flow of stream affected by irrigation and power developments. Daily discharge determined from flow through turbines and taintor gates, computed from relation between discharge, head, and gate openings.

COOPERATION.--Powerplant log furnished by Nebraska Public Power District.

AVERAGE DISCHARGE.--49 years (1913-14, 1927-36, 1940-79), 1,398 ft^3/s (39.59 m^3/s), 1,013,000 acre-ft/yr (1.25 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 27,400 ft^3/s (776 m^3/s) Mar. 12, 1955, gage height, 12.16 ft (3.706 m), site and datum then in use; minimum daily, 5 ft^3/s (0.14 m^3/s) Nov. 14, Dec. 18, 19, 1940.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 4,100 ft^3/s (116 m^3/s) Mar. 18; minimum daily, 487 ft^3/s (13.8 m^3/s) Nov. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	929	1350	1360	856	1320	1390	2490	1360	1480	1530	1070	1020
2	961	1360	1060	743	1320	1550	2490	1380	1340	1340	975	915
3	1040	1320	692	650	1300	1400	2370	1300	1270	1230	898	848
4	1010	1140	593	630	1280	1520	2070	1240	1160	1360	848	794
5	981	1360	678	692	1240	1610	2230	1200	1150	1480	797	790
6	990	1410	588	770	1280	1700	2260	1150	1170	1520	791	838
7	1000	1440	769	877	1300	1910	2190	1270	1720	1580	750	826
8	1010	1400	1100	969	1370	2010	2090	1460	1630	1130	707	909
9	946	1300	1110	1040	1390	2210	1990	1990	1480	1070	719	1380
10	988	1390	1010	1070	1390	2230	1760	2190	1850	1070	705	950
11	1020	1440	1100	1080	1350	2400	2360	2090	1390	983	724	1180
12	1060	1330	1190	1100	1380	2850	2790	1750	1220	948	722	2010
13	1130	1530	1310	1100	1410	3340	2640	1680	1090	864	772	2200
14	1110	1450	1470	1060	1420	3000	2430	1580	1090	908	878	1490
15	1130	983	1550	1040	1420	2670	2240	1490	1050	1160	916	1150
16	1270	1440	1450	1020	1430	2900	1970	1610	1120	1140	960	1050
17	1250	1500	1440	1040	1410	3540	1810	1420	1330	1190	855	1140
18	1200	1320	1430	1080	1280	4100	1730	1500	1950	1050	814	1520
19	1230	761	1440	1080	1150	3590	1660	1530	1690	1030	1060	1320
20	1240	487	1370	1140	1220	2920	1880	1410	1600	976	1110	1090
21	1250	489	1440	1160	1330	2820	1670	1480	1470	1070	1090	881
22	1250	610	1480	1180	1290	3260	1520	1430	1480	910	1130	881
23	1330	702	1440	1200	1340	3030	1450	1300	1960	888	1400	854
24	1330	1030	1350	1250	1390	2380	1380	1350	1840	1090	1140	886
25	1260	1140	1360	1330	1480	2410	1480	1280	1500	967	1060	890
26	1320	1510	1250	1310	1420	2200	1460	1260	1790	1000	1050	881
27	1300	1620	1350	1330	1420	2110	1440	1210	1690	1080	959	874
28	1300	1290	1370	1350	1340	2410	1410	1180	1700	1210	986	861
29	1320	1270	1220	1330	---	2030	1650	1170	1700	1440	892	883
30	1280	1310	1100	1320	---	2370	1290	1810	1610	1280	863	914
31	1320	---	1000	1310	---	2360	---	1810	---	1140	854	---
TOTAL	35755	36682	37070	33107	37670	76220	58200	45880	44520	35634	28495	32225
MEAN	1153	1223	1196	1068	1345	2459	1940	1480	1484	1149	919	1074
MAX	1330	1620	1550	1350	1480	4100	2790	2190	1960	1580	1400	2200
MIN	929	487	588	630	1150	1390	1290	1150	1050	864	705	790
AC-FT	70920	72760	73530	65670	74720	151200	115400	91000	88310	70680	56520	63920

CAL YR 1978 TOTAL 557220 MEAN 1527 MAX 10700 MIN 487 AC-FT 1105000
WTR YR 1979 TOTAL 501458 MEAN 1374 MAX 4100 MIN 487 AC-FT 994600

06465000 NIOBRARA RIVER NEAR SPENCER, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974-1979.

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	TEMPER-ATURE (DEG C) (00010)
OCT				
16...	1445	737	238	9.5
NOV				
07...	1205	1380	238	9.5
DEC				
06...	1200	473	290	.5
FEB				
28...	1135	1400	255	.5
MAR				
22...	1040	3800	257	.5
MAY				
23...	1510	1470	288	17.5
JUN				
12...	1020	1210	258	21.0
JUL				
10...	1700	856	244	32.0
24...	1645	1160	245	27.5
AUG				
14...	1530	791	240	22.5
SEP				
05...	1425	654	248	26.0
25...	1555	977	267	20.0

06465310 EAGLE CREEK NEAR REDBIRD, NE

LOCATION.--Lat 42°45'51", long 98°34'13" in SE1/4NW1/4 sec.11, T.32 N., R.11 W., Holt County, Hydrologic Unit 10150007, on left bank 12 ft (4 m) downstream from bridge on the county road, 7 mi (11 km) west of Redbird.

DRAINAGE AREA.--206 mi^2 (534 km^2).

PERIOD OF RECORD.--October 1978 to September 1979.

GAGE.--Water-stage recorder. Altitude of gage is 1,465 ft (446.5 m) from topographic map.

REMARKS.--Records good except those for winter period, which are poor.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 148 ft^3/s (4.19 m^3/s) July 28, gage height, 5.77 ft (1.759 m); maximum gage height, 6.31 ft (1.923 m) Dec. 31, backwater from ice; minimum daily discharge, 20 ft^3/s (0.57 m^3/s) Aug. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	28	30	35	44	62	54	49	44	43	40	31
2	24	30	25	38	43	70	55	49	41	43	37	27
3	24	31	30	40	49	60	53	47	40	41	34	28
4	23	31	50	37	45	64	53	47	40	54	28	24
5	21	32	45	33	52	58	51	47	38	53	27	26
6	24	31	37	37	66	70	46	46	37	48	27	25
7	25	33	35	34	60	66	46	46	49	46	25	23
8	25	33	30	30	58	70	48	48	46	44	23	24
9	26	35	40	34	56	74	46	59	50	39	26	25
10	28	36	58	33	64	60	46	62	56	38	22	25
11	29	35	56	36	66	80	60	56	47	37	21	32
12	30	38	60	37	58	100	63	52	44	34	20	70
13	31	42	50	33	64	96	57	49	40	32	21	58
14	31	40	47	27	72	88	52	49	39	31	25	45
15	30	40	70	29	56	90	48	48	36	49	29	40
16	29	41	74	32	40	85	51	49	39	38	31	40
17	33	40	80	40	45	87	48	47	42	39	31	38
18	32	38	86	50	56	80	48	45	43	34	27	34
19	35	35	91	52	64	85	46	48	42	35	35	34
20	34	30	84	54	66	71	67	47	42	52	36	33
21	36	32	88	52	60	66	59	45	38	43	34	32
22	35	37	88	54	66	74	55	46	40	37	35	30
23	33	45	90	45	60	80	52	44	52	32	35	31
24	34	42	70	40	50	70	51	44	48	48	32	31
25	36	39	80	45	56	64	49	44	42	43	31	33
26	34	37	76	44	58	60	48	45	39	37	28	33
27	36	35	72	42	64	56	47	43	67	35	28	34
28	35	29	76	40	60	54	46	41	55	71	28	35
29	33	38	60	38	---	53	46	47	48	89	27	36
30	33	36	48	42	---	53	45	51	44	60	26	38
31	32	---	43	40	---	51	---	46	---	46	28	---
TOTAL	935	1069	1869	1223	1598	2197	1536	1486	1328	1371	897	1015
MEAN	30.2	35.6	60.3	39.5	57.1	70.9	51.2	47.9	44.3	44.2	28.9	33.8
MAX	36	45	91	54	72	100	67	62	67	89	40	70
MIN	21	28	25	27	40	51	45	41	36	31	20	23
AC-FT	1850	2120	3710	2430	3170	4360	3050	2950	2630	2720	1780	2010

WTR YR 1979 TOTAL 16524 MEAN 45.3 MAX 100 MIN 20 AC-FT 32780

06465500 NIOBRARA RIVER NEAR VERDEL, NE
National stream-quality accounting network station

LOCATION.--Lat 42°44'25", long 98°12'45", near center of N1/2 sec.23, T.32 N., R.8 W., Knox County, Hydrologic Unit 10150007, on left bank 4 ft (1 m) downstream from Pishelville Bridge, 6 mi (10 km) south of Verdel, and 7 mi (11 km) upstream from Verdigre Creek.

DRAINAGE AREA.--12,600 mi² (32,600 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1938 to May 1940, June 1958 to current year.

REVISED RECORDS.--WDR NE-67: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,308.12 ft (398.715 m) National Geodetic Vertical Datum of 1929. Apr. 25, 1938, to June 16, 1939, nonrecording gage at same site and datum. June 17, 1939, to June 13, 1940, nonrecording gage 250 ft (76 m) downstream at present datum.

REMARKS.--Records fair. Natural flow of stream affected by irrigation and power developments.

AVERAGE DISCHARGE.--22 years, 1,523 ft³/s (43.13 m³/s), 1,103,000 acre-ft/yr (1.36 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 39,000 ft³/s (1,100 m³/s) Mar. 27, 1960, gage height, 10.10 ft (3.078 m); maximum gage height, 10.62 ft (3.237 m) Mar. 12, 1966, backwater from ice; minimum daily discharge, 104 ft³/s (2.95 m³/s) Nov. 30, 1960.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 4,150 ft³/s (118 m³/s) Mar. 18; maximum gage height, 8.87 ft (2.704 m) Mar. 17, ice jam; minimum daily discharge, 502 ft³/s (14.2 m³/s) Nov. 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1400	1410	1440	951	1380	1390	2570	1380	1670	1610	1170	1000
2	980	1440	1250	807	1390	1630	2660	1490	1420	1470	1060	1040
3	1070	1410	850	706	1380	1480	2510	1370	1350	1320	976	892
4	1060	1240	638	657	1350	1550	2350	1320	1220	1300	908	860
5	1030	1350	672	702	1300	1670	2210	1270	1210	1590	849	814
6	1040	1470	658	783	1330	1710	2350	1210	1230	1530	841	892
7	1050	1480	691	877	1350	1950	2330	1250	1500	1730	796	829
8	1060	1460	1050	987	1420	2050	2250	1470	1910	1300	750	946
9	1020	1640	1220	1070	1460	2310	2130	1890	1470	1120	748	1430
10	1020	1210	1060	1110	1460	2280	1940	2300	1930	1120	742	995
11	1050	1520	1120	1120	1440	2450	2220	2240	1630	1060	761	1090
12	1060	1410	1220	1160	1430	2640	2800	1950	1320	1020	754	1810
13	1190	1590	1330	1160	1480	3630	2850	1790	1140	948	795	2430
14	1170	1590	1510	1140	1470	3160	2640	1680	1180	915	874	1750
15	1160	1040	1610	1090	1500	2800	2400	1630	1090	1130	958	1290
16	1290	1400	1580	1070	1480	3030	2170	1540	1110	1180	1000	1120
17	1370	1600	1490	1090	1500	3480	1930	1630	1330	1270	947	1080
18	1260	1470	1510	1120	1420	4150	1870	1500	1820	1130	829	1530
19	1280	1070	1500	1120	1230	4140	1740	1630	1900	1070	1020	1450
20	1300	507	1460	1190	1240	3140	1910	1590	1700	1070	1180	1330
21	1310	502	1470	1220	1390	3000	1820	1500	1670	1110	1130	884
22	1300	609	1540	1220	1370	3220	1680	1510	1510	983	1160	959
23	1370	649	1560	1250	1400	3430	1530	1420	1710	946	1440	906
24	1400	988	1420	1280	1380	2540	1470	1420	2240	1050	1260	900
25	1370	1160	1450	1390	1580	2520	1500	1370	1610	1070	1120	936
26	1350	1400	1340	1400	1470	2430	1550	1320	1890	1030	1120	949
27	1370	1810	1350	1390	1500	2180	1490	1260	1710	1060	1040	911
28	1370	1410	1470	1420	1440	2530	1490	1250	1790	1200	1010	895
29	1390	1370	1340	1410	---	2240	1650	1200	1700	1520	978	921
30	1350	1340	1180	1390	---	2380	1510	1540	1830	1440	918	946
31	1350	---	1100	1390	---	2500	---	2120	---	1180	884	---
TOTAL	37790	38545	39079	34670	39540	79610	61520	48040	46790	37472	30018	33785
MEAN	1219	1285	1261	1118	1412	2568	2051	1550	1560	1209	968	1126
MAX	1400	1810	1610	1420	1580	4150	2850	2300	2240	1730	1440	2430
MIN	980	502	638	657	1230	1390	1470	1200	1090	915	742	814
AC-FT	74960	76450	77510	68770	78430	157900	122000	95290	92810	74330	59540	67010

CAL YR 1978 TOTAL 585434 MEAN 1604 MAX 11200 MIN 502 AC-FT 1161000
WTR YR 1979 TOTAL 526859 MEAN 1443 MAX 4150 MIN 502 AC-FT 1045000

06465500 NIOBRARA RIVER NEAR VERDEL, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1958-65, 1967 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: January 1975 to current year.
WATER TEMPERATURES: June 1958 to September 1965, October 1966 to current year.
SUSPENDED-SEDIMENT DISCHARGE: October 1971 to current year.

INSTRUMENTATION.--Temperature recorder since June 14, 1958.

REMARKS.--Prior to July 1, 1971, sediment records were obtained by U.S. Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 470 micromhos Dec. 22, 1976; minimum daily, 110 micromhos Nov. 22, 1976.
WATER TEMPERATURES: Maximum, 38.0°C July 22, 1964, July 20, 1974; minimum, 0.0°C on many days during winter periods.
SEDIMENT CONCENTRATIONS: Maximum daily, 12,000 mg/L June 8, 1975; minimum daily, 50 mg/L Dec. 31, Jan. 1, 3, 5, 6, 1978.
SEDIMENT LOADS: Maximum daily, 423,000 tons (385,000 tonnes) Mar. 19, 1979; minimum daily, 60 tons (55 tonnes) Dec. 7, 1972.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 445 micromhos Mar. 28; minimum daily, 160 micromhos Nov. 5, Dec. 2.
WATER TEMPERATURES: maximum, 35.5°C July 3; minimum, 0.0°C on many days during winter period.
SEDIMENT CONCENTRATIONS: Maximum daily, 5,210 mg/L Mar. 26; minimum daily, 112 mg/L Jan. 3.
SEDIMENT LOADS: Maximum daily, 423,000 tons (385,000 tonnes) Mar. 19; minimum daily, 332 tons (302 tonnes) Aug. 6.

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (JTU) (00070)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)
OCT										
24...	1045	1390	236	7.5	15.0	70	35	11.1	3.2	--
NOV										
14...	1110	1450	245	7.4	1.5	100	36	14.0	1.0	100
DEC										
05...	1120	787	282	7.4	.5	35	38	14.0	3.6	K56
JAN										
16...	1445	1170	274	7.2	.5	10	8.4	12.6	1.5	K31
FEB										
06...	1310	1390	276	7.3	.5	15	11	11.1	3.3	K37
MAR										
20...	1105	4260	257	7.4	.5	95	170	13.2	3.4	K44
APR										
10...	1115	2000	275	7.8	9.5	140	200	10.3	3.6	K41
MAY										
01...	1040	1370	280	7.8	11.5	55	25	10.9	3.6	K44
JUN										
12...	1110	1200	269	7.7	30.5	35	40	8.7	3.6	240
JUL										
24...	1000	992	246	7.4	24.0	40	40	8.5	5.8	670
AUG										
14...	0945	777	248	7.9	22.0	25	19	9.0	4.0	89
SEP										
25...	0950	878	251	7.8	16.0	45	45	9.8	4.0	150

DATE	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)
OCT									
24...	--	100	--	33	4.8	9.9	.4	5.9	110
NOV									
14...	800	100	0	34	4.8	8.9	.4	5.0	110
DEC									
05...	540	120	0	39	5.4	9.9	.4	6.7	120
JAN									
16...	K80	120	3	40	5.6	10	.4	6.7	120
FEB									
06...	96	110	4	37	5.3	9.3	.4	5.2	110
MAR									
20...	2700	110	20	37	5.3	8.8	.4	5.3	94
APR									
10...	2600	120	3	40	5.6	12	.5	6.9	120
MAY									
01...	180	120	2	40	5.3	11	.4	7.0	120
JUN									
12...	840	110	3	37	5.1	11	.5	8.1	110
JUL									
24...	1300	100	0	34	4.4	10	.4	7.3	110
AUG									
14...	940	110	0	35	4.4	10	.4	6.6	110
SEP									
25...	260	110	0	35	4.7	9.8	.4	6.3	110

K Results based on colony count outside the acceptable range (non-ideal colony count).

06465500 NIOBRARA RIVER NEAR VERDEL, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)
OCT									
24...	15	2.0	.3	47	191	--	.26	717	.55
NOV									
14...	17	1.8	.2	48	181	178	.25	709	.73
DEC									
05...	19	2.0	.3	47	206	207	.28	438	1.1
JAN									
16...	17	6.5	.3	58	220	216	.30	695	1.1
FEB									
06...	19	1.9	.3	58	205	202	.28	769	.96
MAR									
20...	34	2.0	.3	31	174	183	.24	2000	.52
APR									
10...	28	2.3	.4	44	209	211	.28	1130	.86
MAY									
01...	22	2.6	.4	40	210	200	.29	777	.55
JUN									
12...	20	2.2	.4	45	207	195	.28	671	.01
JUL									
24...	21	1.9	.4	48	187	193	.25	501	.10
AUG									
14...	18	1.8	.3	54	199	196	.27	417	.01
SEP									
25...	12	1.4	.3	51	189	188	.26	448	.40

DATE	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, NH4 + ORG. SUSP. TOTAL (MG/L AS N) (00624)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P) (00666)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
OCT									
24...	.03	.78	.81	.49	.32	1.4	.26	.08	7.2
NOV									
14...	.06	.94	1.0	.85	.15	1.7	.36	.09	9.8
DEC									
05...	.03	.48	.51	.12	.39	1.6	.22	.11	2.6
JAN									
16...	.02	.38	.40	.17	.23	1.5	.14	.13	27
FEB									
06...	.02	.18	.20	.00	.20	1.2	.15	.11	3.0
MAR									
20...	.07	.70	.77	.39	.38	1.3	.26	.08	--
APR									
10...	.05	2.5	2.5	2.0	.46	3.4	.54	.11	18
MAY									
01...	.07	.51	.58	.33	.25	1.1	.22	.08	6.5
JUN									
12...	.02	1.3	1.3	.85	.45	1.3	.03	.04	--
JUL									
24...	.03	.88	.91	.77	.14	1.0	.26	.05	7.5
AUG									
14...	.01	.84	.85	.60	.25	.86	.15	.01	8.8
SEP									
25...	.04	.62	.66	.44	.22	1.1	.17	.04	--

06465500 NIOBRARA RIVER NEAR VERDEL, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, DIS-SOLVED (MG/L AS N) (00602)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC SUS-PENDED TOTAL (UG/L AS AS) (01001)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	BARIUM, SUS-PENDED RECOV-ERABLE (UG/L AS BA) (01006)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CADMIUM SUS-PENDED RECOV-ERABLE (UG/L AS CD) (01026)
DEC 05...	1120	1.1	--	5	--	5	100	0	100	40	2	0
MAR 20...	1105	.48	--	5	--	4	200	200	0	30	1	0
JUN 12...	1110	.00	.45	9	--	6	200	100	100	30	1	0
SEP 25...	0950	.32	.54	6	0	6	100	20	80	20	0	0

DATE	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	CHRO-MIUM, SUS-PENDED RECOV. (UG/L AS CR) (01031)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO) (01037)	COBALT, SUS-PENDED RECOV-ERABLE (UG/L AS CO) (01036)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	COPPER, SUS-PENDED RECOV-ERABLE (UG/L AS CU) (01041)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)
DEC 05...	2	10	10	0	2	0	<3	5	3	2	2700
MAR 20...	1	10	10	0	2	2	0	10	9	1	4700
JUN 12...	1	10	10	0	3	3	0	8	8	0	3000
SEP 25...	<1	10	0	10	0	0	<3	3	1	2	2500

DATE	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE) (01044)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, SUS-PENDED RECOV-ERABLE (UG/L AS PB) (01050)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN) (01054)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY SUS-PENDED RECOV-ERABLE (UG/L AS HG) (71895)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)
DEC 05...	2700	20	--	--	--	180	170	10	.0	.0	.0
MAR 20...	4600	70	--	--	--	380	350	30	.1	.1	.0
JUN 12...	3000	30	7	7	0	240	240	0	.1	.0	.1
SEP 25...	2500	40	4	4	0	160	160	3	.1	.1	.0

DATE	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, SUS-PENDED TOTAL (UG/L AS SE) (01146)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG) (01077)	SILVER, SUS-PENDED RECOV-ERABLE (UG/L AS AG) (01076)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, SUS-PENDED RECOV-ERABLE (UG/L AS ZN) (01091)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)
DEC 05...	2	0	2	0	0	0	20	20	5	--	--
MAR 20...	4	3	1	0	0	0	30	20	10	3.9	2.7
JUN 12...	2	1	1	0	0	0	30	20	10	4.9	3.8
SEP 25...	1	0	1	0	0	0	10	7	<3	34	1.9

06465500 NIOBRARA RIVER NEAR VERDEL, NE--Continued

PHYTOPLANKTON ANALYSES, AUGUST 1978 TO SEPTEMBER 1979

DATE	AUG 22,78		SEP 12,78		NOV 14,78		MAR 20,79		MAY 1,79	
TIME	1055		1045		1110		1105		1040	
TOTAL CELLS/ML	200000		130000		4600		1700		7100	
DIVERSITY: DIVISION	0.6		0.7		1.0		0.7		1.3	
.CLASS	0.6		0.7		1.0		0.7		1.4	
..ORDER	1.2		0.9		1.5		1.4		2.2	
...FAMILY	2.5		1.9		2.2		3.0		2.7	
....GENUS	3.2		2.6		2.4		3.3		0.0	
ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)										
.CHLOROPHYCEAE										
..CHLOROCOCCALES										
...CHARACIACEAE										
....SCHROEDERIA	--	-	--	-	--	-	--	-	--	-
...COELASTRACEAE										
....COELASTRUM	13000	7	12000	9	--	-	--	-	--	-
...HYDRODICTYACEAE										
....PEDIASTRUM	16000	8	--	-	--	-	--	-	--	-
...MICRACTINIACEAE										
....GOLENKINIA	--	-	--	-	--	-	--	-	--	-
....MICRACTINIUM	--	-	--	-	--	-	--	-	480	7
...OOCYSTACEAE										
....ANKISTRODESMUS	19000	10	3600	3	130	3	20	1	900	13
....BOHLINIA	--	-	2100	2	--	-	--	-	--	-
....CHODATELLA	--	-	3600	3	--	-	--	-	--	-
....DICTYOSPHAERIUM	8300	4	1500	1	--	-	--	-	--	-
....FRANCEIA	*	0	--	-	--	-	--	-	60	1
....KIRCHNERIELLA	3300	2	4600	4	43	1	--	-	--	-
....OOCYSTIS	2800	1	2600	2	--	-	--	-	240	3
....SELENASTRUM	1700	1	--	-	--	-	--	-	--	-
....TETRAEDRON	*	0	--	-	--	-	--	-	60	1
....TREUBARIA	--	-	--	-	--	-	--	-	--	-
...SCENEDESMACEAE										
....ACTINASTRUM	2200	1	6200	5	170	4	--	-	--	-
....CORONASTRUM	4400	2	--	-	--	-	--	-	--	-
....SCENEDESMUS	79000#	40	71000#	55	1400#	31	--	-	360	5
....TETRASTRUM	4400	2	4100	3	--	-	--	-	240	3
..TETRASPORALES										
...PALMELLACEAE										
....SPHAEROCYSTIS	6600	3	--	-	--	-	--	-	--	-
..VOLVOCALES										
...CHLAMYDOMONADACEAE	--	-	--	-	--	-	--	-	2100#	29
....CHLAMYDOMONAS	13000	7	2600	2	--	-	--	-	--	-
...PHACOTACEAE										
....PHACOTUS	1100	1	--	-	--	-	--	-	--	-
CHRYSOPHYTA										
.BACILLARIOPHYCEAE										
..CENTRALES										
...COSCINODISCACEAE										
....CYCLOTELLA	3300	2	5600	4	990#	21	300#	18	420	6
....MELOSIRA	--	-	--	-	--	-	140	9	--	-
....STEPHANODISCUS	*	0	--	-	--	-	--	-	--	-
..PENNALES										
...ACHNANTHACEAE										
....COCCONEIS	*	0	--	-	--	-	100	6	--	-
...CYMBELLACEAE										
....CYMBELLA	--	-	--	-	--	-	81	5	--	-
...DIATOMACEAE										
....DIATOMA	--	-	--	-	--	-	120	7	--	-
...FRAGILARIACEAE										
....FRAGILARIA	--	-	--	-	1300#	27	320#	20	--	-
....SYNEDRA	--	-	*	0	--	-	20	1	--	-
...GOMPHONEMATACEAE										
....GOMPHONEMA	--	-	--	-	--	-	100	6	--	-
...NAVICULACEAE										
....NAVICULA	1100	1	2100	2	260	6	160	10	60	1
...NITZSCHIACEAE										
....NITZSCHIA	5000	3	3100	2	350	7	40	2	1600#	22
...SURIRELLACEAE										
....CYMATOPLEURA	--	-	--	-	--	-	20	1	--	-
.XANTHOPHYCEAE										
..HETEROCOCCALES										
...CHLOROTHECIACEAE										
....OPHIOCYTIUM	--	-	--	-	--	-	--	-	60	1

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

06465500 NIOBRARA RIVER NEAR VERDEL, NE--Continued

PHYTOPLANKTON ANALYSES, AUGUST 1978 TO SEPTEMBER 1979

DATE	AUG 22,78		SEP 12,78		NOV 14,78		MAR 20,79		MAY 1,79	
TIME	1055		1045		1110		1105		1040	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CYANOPHYTA (BLUE-GREEN ALGAE)										
.CYANOPHYCEAE										
..CHROOCOCCALES										
...CHROOCOCCACEAE										
....AGMENELLUM	8900	5	--	-	--	-	--	-	--	-
....ANACYSTIS	--	-	5100	4	--	-	--	-	360	5
....COCCOCHLORIS	--	-	--	-	--	-	--	-	--	-
..HORMOGONALES										
...NOSTOCACEAE										
....ANABAENA	--	-	--	-	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)										
.EUGLENOPHYCEAE										
..EUGLENALES										
...EUGLENACEAE										
....EUGLENA	*	0	--	-	--	-	20	1	--	-
....TRACHELOMONAS	--	-	--	-	--	-	200	12	240	3

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

06465500 NIOBRARA RIVER NEAR VERDEL, NE--Continued

PHYTOPLANKTON ANALYSES, AUGUST 1978 TO SEPTEMBER 1979

DATE	JUN 12,79		JUL 24,79		AUG 14,79		SEP 25,79	
TIME	1110		1000		0945		0950	
TOTAL CELLS/ML	100000		120000		150000		19000	
DIVERSITY: DIVISION	1.1		0.7		1.0		1.1	
.CLASS	1.1		0.7		1.0		1.1	
..ORDER	1.4		0.8		1.3		1.9	
...FAMILY	2.0		2.0		2.2		2.6	
....GENUS	2.5		2.5		2.5		3.2	

ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)								
.CHLOROPHYCEAE								
..CHLOROCOCCALES								
...CHARACIACEAE								
....SCHROEDERIA	*	0	--	-	--	-	--	-
...COELASTRACEAE								
....COELASTRUM	--	-	5600	5	5400	4	390	2
...HYDRODICTYACEAE								
....PEDIASTRUM	--	-	3700	3	--	-	--	-
...MICRACTINIACEAE								
....GOLENKINIA	--	-	--	-	--	-	300	2
....MICRACTINIUM	--	-	5200	4	--	-	--	-
...OOCYSTACEAE								
....ANKISTRODESMUS	27000#	26	14000	11	23000#	15	200	1
....BOHLINIA	--	-	--	-	--	-	--	-
....CHODATELLA	--	-	*	0	--	-	--	-
....DICTYOSPHAERIUM	3900	4	3700	3	1400	1	2000	10
....FRANCEIA	--	-	--	-	--	-	--	-
....KIRCHNERIELLA	--	-	--	-	--	-	--	-
....OOCYSTIS	--	-	*	0	*	0	590	3
....SELENASTRUM	--	-	--	-	9500	6	98	1
....TETRAEDRON	--	-	--	-	*	0	--	-
....TREUBARIA	--	-	*	0	--	-	98	1
...SCENEDESMACEAE								
....ACTINASTRUM	970	1	2300	2	--	-	--	-
....CORONASTRUM	--	-	--	-	--	-	--	-
....SCENEDESMUS	15000	14	67000#	54	66000#	44	4900#	26
....TETRASTRUM	6400	6	3700	3	--	-	1600	8
..TETRASPORALES								
...PALMELLACEAE								
....SPHAEROCYSTIS	5200	5	--	-	--	-	--	-
..VOLVOCALES								
...CHLAMYDOMONADACEAE	--	-	--	-	--	-	--	-
....CHLAMYDOMONAS	2300	2	*	0	2000	1	3500#	19
...PHACOTACEAE								
....PHACOTUS	--	-	--	-	--	-	--	-
CHRYSOPHYTA								
.BACILLARIOPHYCEAE								
..CENTRALES								
...COSCINODISCACEAE								
....CYCLOTELLA	1300	1	3700	3	2000	1	690	4
....MELOSIRA	--	-	--	-	--	-	390	2
....STEPHANODISCUS	--	-	--	-	--	-	--	-
..PENNALES								
...ACHNANTHACEAE								
....COCCONEIS	--	-	--	-	--	-	--	-
...CYMBELLACEAE								
....CYMBELLA	--	-	--	-	--	-	--	-
...DIATOMACEAE								
....DIATOMA	--	-	--	-	--	-	--	-
...FRAGILARIACEAE								
....FRAGILARIA	--	-	--	-	--	-	300	2
....SYNEDRA	--	-	--	-	--	-	--	-
...GOMPHONEMATACEAE								
....GOMPHONEMA	--	-	--	-	--	-	--	-
...NAVICULACEAE								
....NAVICULA	--	-	--	-	--	-	--	-
...NITZSCHIACEAE								
....NITZSCHIA	--	-	2300	2	4100	3	1800	9
...SURIRELLACEAE								
....CYMATOPLEURA	--	-	--	-	--	-	--	-
.XANTHOPHYCEAE								
..HETEROCOCCALES								
...CHLOROTHECIACEAE								
....OPHIOCYTIUM	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

06465500 NIOBRARA RIVER NEAR VERDEL, NE--Continued

PHYTOPLANKTON ANALYSES, AUGUST 1978 TO SEPTEMBER 1979

DATE TIME	JUN 12,79 1110		JUL 24,79 1000		AUG 14,79 0945		SEP 25,79 0950	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CYANOPHYTA (BLUE-GREEN ALGAE)								
.CYANOPHYCEAE								
..CHROOCOCCALES								
...CHROOCOCCACEAE								
....AGMENELLUM	--	-	--	-	--	-	--	-
....ANACYSTIS	39000#	38	11000	9	27000#	18	2100	11
....COCCOCHLORIS	2900	3	--	-	--	-	--	-
..HORMOGONALES								
...NOSTOCACEAE								
....ANABAENA	--	-	--	-	6800	5	--	-
EUGLENOPHYTA (EUGLENOIDS)								
.EUGLENOPHYCEAE								
..EUGLENALES								
...EUGLENACEAE								
....EUGLENA	--	-	--	-	*	0	--	-
....TRACHELOMONAS	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	LENGTH OF EXPO- SURE (DAYS) (00022)	BIOMASS CHLORO- PHYLL RATIO PERI- PHYTON (UNITS) (70950)	CHLOR-A PERI- PHYTON CHROMO- GRAPHIC FLUOROM (MG/M2) (70957)	CHLOR-B PERI- PHYTON CHROMO- GRAPHIC FLUOROM (MG/M2) (70958)	PERI- PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M (00573)	PERI- PHYTON BIOMASS ASH WEIGHT G/SQ M (00572)
MAY						
01...	28	362	2.18	.480	3.62	2.83
AUG						
14...	35	1429	.980	.170	16.5	15.1
SEP						
05...	22	4240	1.25	.160	67.5	62.2

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)
AUG					
27...	1400	236	7.6	26.0	7.8
27...	1600	234	7.9	27.5	7.8
27...	1800	231	8.3	27.0	7.6
27...	2000	234	8.4	26.5	7.1
27...	2200	227	7.8	24.0	6.9
27...	2400	227	8.3	23.0	7.0
28...	0200	231	8.1	22.5	7.2
AUG					
28...	0400	233	8.2	21.5	7.5
28...	0600	247	8.5	21.0	7.6
28...	0800	223	7.9	20.0	8.0
28...	1000	225	8.1	20.0	8.3
28...	1200	234	8.0	22.0	8.3

06465500 NIOBRARA RIVER NEAR VERDEL, NE--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	261	310	325	350	320	290	298	284	261	285	275	255
2	247	320	160	326	318	289	285	277	268	249	252	257
3	245	320	310	320	318	290	288	280	269	260	264	244
4	246	320	315	322	319	290	284	287	270	258	247	244
5	244	160	320	322	316	372	284	282	269	258	253	245
6	243	310	320	322	312	290	288	283	267	269	249	245
7	243	320	315	329	313	376	283	283	269	287	246	247
8	245	325	170	325	310	290	300	286	267	279	248	244
9	243	315	310	323	315	290	293	273	267	264	249	243
10	240	320	180	322	312	378	285	278	270	247	248	242
11	245	320	315	320	308	295	311	280	271	249	250	240
12	243	320	320	325	310	289	301	282	268	248	247	244
13	240	170	175	320	304	287	283	284	269	245	248	243
14	246	315	320	329	306	386	281	280	268	245	245	244
15	247	320	320	328	309	291	309	284	279	255	249	242
16	242	320	320	330	306	353	307	278	268	239	245	243
17	242	320	190	333	303	290	308	282	275	244	249	245
18	242	320	315	325	305	287	303	283	275	242	265	244
19	243	325	320	326	304	375	281	295	269	250	254	244
20	242	170	320	330	301	292	288	285	267	252	255	243
21	239	180	320	336	296	428	282	300	265	244	249	243
22	238	325	320	330	300	295	282	270	266	249	257	245
23	242	325	180	328	297	287	310	265	268	247	246	244
24	238	320	320	331	298	288	283	270	270	249	245	244
25	240	180	310	329	295	408	291	258	265	255	253	245
26	238	315	316	317	297	381	289	263	265	238	248	238
27	247	320	325	326	294	290	282	276	263	242	254	236
28	238	180	318	319	292	445	309	269	265	232	256	236
29	235	231	326	322	---	295	283	258	262	244	252	243
30	236	283	330	327	---	288	288	265	268	242	247	240
31	233	---	325	323	---	293	---	270	---	240	250	---

06465500 NIOBRARA RIVER NEAR VERDEL, NE--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	21.5	14.0	11.0	5.5	1.0	.5	1.5	1.5	1.5	1.0	1.0	.5
2	20.5	15.5	12.0	6.5	1.0	1.0	1.5	1.0	1.0	1.0	1.0	.5
3	15.5	12.0	13.0	8.0	1.0	1.0	1.5	1.0	1.5	.5	1.0	1.0
4	14.0	9.5	12.0	7.0	1.0	.5	1.5	1.0	1.5	1.0	1.0	.5
5	11.0	9.5	12.0	6.5	.5	.5	1.5	1.0	1.5	.5	1.0	.5
6	14.0	8.0	7.0	4.0	1.0	.5	.5	.0	1.0	.5	.5	.5
7	15.5	8.0	8.5	4.0	1.0	1.0	.5	.5	1.0	1.0	1.0	.5
8	17.0	9.0	10.0	5.5	1.5	1.0	1.0	.0	1.0	1.0	1.0	.5
9	18.0	13.0	9.5	5.0	1.0	1.0	.5	.0	1.0	.5	1.0	.5
10	18.5	11.0	6.5	3.5	1.0	.5	.5	.0	.5	.0	1.5	1.0
11	17.0	13.0	3.5	.5	.5	.5	.5	.0	.5	.5	1.0	.5
12	15.0	12.0	1.0	.5	.5	.5	.5	.5	.5	.5	1.0	.5
13	13.0	9.0	2.0	.5	.5	.5	1.0	.5	.5	.5	1.0	.5
14	14.5	8.5	1.0	.5	.5	.5	1.0	.5	.5	.0	1.0	.5
15	13.5	8.5	1.0	.5	.5	.0	1.0	.5	1.0	.0	1.0	.5
16	13.0	7.0	.5	.5	.5	.5	1.0	.5	1.0	1.0	.5	.5
17	14.0	7.0	3.5	.5	.5	.5	.5	.0	1.5	1.5	.5	.5
18	14.0	9.5	1.5	.5	.5	.5	.5	.0	.5	.5	.5	.5
19	15.5	8.5	1.0	.5	.5	.5	.0	.0	1.0	.5	.5	.5
20	16.5	9.0	.5	.0	.5	.5	.0	.0	.5	.5	.5	.5
21	14.5	11.5	.0	.0	.5	.5	.0	.0	1.0	1.0	.5	.5
22	13.5	8.0	.0	.0	.5	.0	.0	.0	1.0	.5	.5	.5
23	9.5	5.0	.0	.0	1.0	.5	.5	.5	1.0	1.0	.5	.5
24	12.0	6.5	.0	.0	1.0	1.0	1.0	.5	1.0	1.0	1.0	.5
25	11.0	8.0	.5	.5	1.0	1.0	.5	.0	1.0	.5	1.0	1.0
26	10.0	5.5	.5	.5	1.0	.5	.5	.5	1.0	.5	1.5	1.0
27	10.5	5.5	1.0	.5	1.0	.5	1.0	1.0	.5	.5	2.0	1.0
28	9.5	6.0	1.0	1.0	1.0	.5	1.0	1.0	1.0	.5	5.5	1.5
29	12.0	6.0	.5	.5	1.0	1.0	1.5	1.0	---	---	4.0	3.0
30	11.0	8.0	1.0	.5	1.0	1.0	1.0	1.0	---	---	3.0	2.0
31	10.0	5.5	---	---	1.5	1.0	1.5	1.0	---	---	5.0	2.0
MONTH	21.5	5.0	13.0	.0	1.5	.0	1.5	.0	1.5	.0	5.5	.5

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	4.0	3.0	13.0	8.5	23.5	14.0	30.0	21.0	30.0	20.0	29.0	21.5
2	4.5	3.0	14.0	10.0	23.0	14.0	27.0	22.0	34.5	22.0	30.5	20.0
3	5.5	3.0	16.5	8.0	26.5	15.5	35.5	23.5	31.5	23.5	30.0	21.5
4	7.0	2.0	20.0	8.5	26.0	17.0	30.0	22.0	33.0	21.5	29.5	21.5
5	6.0	4.0	20.5	11.0	28.0	18.0	22.0	19.5	31.5	24.5	31.0	21.0
6	7.0	2.0	25.5	13.5	28.5	19.0	21.0	18.5	33.0	24.0	28.0	19.0
7	12.0	4.0	24.0	15.5	23.0	18.0	21.5	18.0	35.0	23.5	25.5	18.0
8	9.5	5.0	19.0	12.0	19.5	15.5	31.5	19.0	33.0	23.5	29.0	18.5
9	10.5	4.0	12.0	7.0	18.0	14.0	31.5	21.5	33.0	24.0	27.0	20.0
10	8.5	6.0	8.0	6.5	23.0	11.5	34.5	23.0	26.5	20.5	28.5	21.0
11	6.0	5.0	16.0	5.5	25.0	15.5	31.0	23.5	29.5	19.0	24.0	20.0
12	5.0	4.0	18.5	10.5	30.5	16.5	34.5	23.5	28.0	18.5	21.0	16.5
13	9.5	3.5	19.0	11.0	29.0	19.5	30.5	24.0	23.5	20.5	20.5	14.0
14	13.0	6.0	22.0	12.0	30.0	20.0	31.0	20.5	24.5	17.0	19.5	13.5
15	15.0	8.5	21.0	13.5	29.0	19.5	29.0	20.0	20.0	16.5	23.5	13.0
16	16.5	10.0	24.0	14.5	27.0	20.0	25.5	20.0	21.5	15.5	23.5	15.5
17	18.0	11.5	23.5	15.0	20.0	16.0	29.5	19.0	30.5	19.0	24.5	15.5
18	19.0	14.5	17.0	13.5	18.0	15.0	29.5	20.0	26.0	21.5	23.5	16.0
19	19.0	13.5	23.0	11.5	26.5	17.0	29.5	20.5	24.5	20.5	23.0	15.0
20	16.5	11.0	23.0	15.5	23.0	15.5	31.0	21.5	29.5	20.0	20.5	15.5
21	18.0	10.5	19.5	13.5	30.0	17.0	33.5	23.0	29.0	20.5	21.0	12.0
22	18.0	12.0	23.0	14.0	28.0	18.5	33.0	22.0	26.0	20.5	20.5	13.5
23	20.0	12.0	21.5	13.5	24.5	18.5	32.0	24.5	26.0	19.5	20.0	14.5
24	19.0	14.0	24.5	13.0	27.0	19.0	28.5	23.5	28.5	18.0	23.5	15.5
25	15.0	11.0	24.0	14.5	29.0	19.0	33.5	23.0	26.5	19.0	23.5	15.0
26	15.5	9.5	24.5	16.0	31.5	20.5	31.5	24.0	26.5	20.5	23.0	15.5
27	14.0	8.0	28.5	15.5	31.5	23.0	29.5	21.5	26.5	19.5	24.0	17.0
28	13.5	8.0	28.0	16.5	30.5	23.0	30.5	23.0	26.5	20.0	23.5	16.0
29	14.5	7.0	29.5	19.0	31.0	21.0	30.0	23.5	29.0	19.5	23.5	15.5
30	17.0	7.0	21.0	14.5	29.0	21.0	30.0	24.0	30.5	21.5	22.0	14.5
31	---	---	21.5	12.0	---	---	28.0	23.0	30.5	22.0	---	---
MONTH	20.0	2.0	29.5	5.5	31.5	11.5	35.5	18.0	35.0	15.5	31.0	12.0

06465500 NIOBRARA RIVER NEAR VERDEL, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)
OCT							
03...	1335	1130	13.5	746	2280	--	--
24...	1330	1390	21.0	1640	6160	11	12
NOV							
14...	1325	1450	.5	1860	7280	10	11
DEC							
05...	1300	784	.5	1620	3430	--	--
27...	1520	1400	.5	1520	5740	6	6
MAR							
20...	1310	4260	.5	1360	15600	16	18
APR							
10...	1315	2000	8.5	1340	7240	12	17
MAY							
01...	1255	1370	9.0	1400	5180	--	--
23...	1105	1460	17.5	1140	4490	8	9
JUN							
12...	1310	1200	26.5	694	2250	11	13
JUL							
10...	1225	1200	30.0	461	1490	--	--
AUG							
14...	1055	777	19.0	304	638	--	--
SEP							
05...	1025	690	24.0	311	579	--	--
25...	1125	878	18.5	468	1110	11	15

DATE	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70344)	SED. SUSP. FALL DIAM. % FINER THAN .500 MM (70345)	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM (70346)
OCT						
03...	--	21	53	77	97	100
24...	13	22	40	86	98	100
NOV						
14...	13	24	47	88	99	100
DEC						
05...	--	14	28	78	99	100
27...	6	10	16	64	93	100
MAR						
20...	19	25	34	68	94	100
APR						
10...	22	33	45	70	89	97
MAY						
01...	--	12	29	80	97	100
23...	11	18	40	82	98	100
JUN						
12...	16	27	48	88	99	100
JUL						
10...	--	35	52	81	99	100
AUG						
14...	--	38	59	85	95	100
SEP						
05...	--	28	46	77	97	100
25...	25	34	42	87	98	100

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	NUMBER OF SAM-PLING POINTS (00063)	BED MAT. FALL DIAM. % FINER THAN .062 MM (80158)	BED MAT. FALL DIAM. % FINER THAN .125 MM (80159)	BED MAT. FALL DIAM. % FINER THAN .250 MM (80160)	BED MAT. FALL DIAM. % FINER THAN .500 MM (80161)	BED MAT. FALL DIAM. % FINER THAN 1.00 MM (80162)	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM (80171)	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM (80172)
OCT												
03...	1335	1130	5	--	0	30	90	99	99	100	--	--
24...	1330	1390	5	0	11	76	93	98	99	99	100	--
NOV												
14...	1325	1450	5	0	10	46	92	99	100	--	--	--
MAR												
20...	1310	4260	4	0	4	29	79	94	98	99	100	--
APR												
10...	1315	2000	5	0	1	17	65	86	93	98	99	100
MAY												
01...	1255	1370	5	0	2	43	89	94	99	100	--	--
23...	1105	1460	5	--	0	27	79	95	97	99	100	--
JUN												
12...	1310	1200	4	0	1	27	87	99	99	100	--	--
JUL												
10...	1225	1200	5	--	0	44	96	99	100	--	--	--
24...	1215	992	5	--	0	21	82	95	97	99	99	100
AUG												
14...	1055	777	5	--	0	29	87	95	97	99	100	--
SEP												
05...	1025	690	5	--	0	31	88	96	98	99	100	--
25...	1125	878	5	--	0	16	81	97	98	99	100	--

06465500 NIOBRARA RIVER NEAR VERDEL, NE--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	1400	1700	6400	1410	1100	4200	1440	400	1600
2	980	1700	4500	1440	1200	4700	1250	400	1400
3	1070	1000	2900	1410	1300	4900	850	570	1300
4	1060	1900	5400	1240	1400	4700	638	850	1500
5	1030	1900	5300	1350	1400	5100	672	1400	2500
6	1040	1600	4500	1470	1300	5200	658	490	870
7	1050	1500	4300	1480	1300	5200	691	320	600
8	1060	1500	4300	1460	1200	4700	1050	360	1000
9	1020	1200	3300	1640	1300	5800	1220	350	1200
10	1020	750	2100	1210	1300	4200	1060	350	1000
11	1050	850	2400	1520	1100	4500	1120	410	1200
12	1060	1200	3400	1410	920	3500	1220	480	1600
13	1190	1000	3200	1590	1300	5600	1330	590	2100
14	1170	700	2200	1590	1700	7300	1510	700	2900
15	1160	700	2200	1040	1200	3400	1610	790	3400
16	1290	800	2800	1400	460	1700	1580	860	3700
17	1370	750	2800	1600	440	1900	1490	780	3100
18	1260	700	2400	1470	520	2100	1510	650	2600
19	1280	820	2800	1070	390	1100	1500	480	1900
20	1300	1000	3500	507	260	360	1460	330	1300
21	1310	840	3000	502	410	560	1470	410	1600
22	1300	600	2100	609	580	950	1540	540	2200
23	1370	1000	3700	649	660	1200	1560	680	2900
24	1400	1500	5700	988	730	1900	1420	830	3200
25	1370	1400	5200	1160	820	2600	1450	1000	3900
26	1350	1200	4400	1400	890	3400	1340	1300	4700
27	1370	1100	4100	1810	700	3400	1350	1500	5500
28	1370	1000	3700	1410	490	1900	1470	1400	5600
29	1390	1000	3800	1370	440	1600	1340	1300	4700
30	1350	980	3600	1340	420	1500	1180	1300	4200
31	1350	1000	3600	---	---	---	1100	1200	3500
TOTAL	37790	---	113600	38545	---	99170	39079	---	78770

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JANUARY			FEBRUARY			MARCH	
1	951	1200	3100	1380	510	1900	1390	400	1500
2	807	1200	2600	1390	510	1900	1630	300	1300
3	706	860	1600	1380	480	1800	1480	650	2600
4	657	560	990	1350	470	1700	1550	1000	4200
5	702	680	1300	1300	480	1700	1670	920	4100
6	783	860	1800	1330	470	1700	1710	790	3600
7	877	830	2000	1350	470	1700	1950	990	5200
8	987	800	2100	1420	470	1800	2050	1300	7200
9	1070	1100	3200	1460	460	1800	2310	1400	8700
10	1110	1400	4200	1460	460	1800	2280	1400	8600
11	1120	1400	4200	1440	460	1800	2450	1400	9300
12	1160	1300	4100	1430	490	1900	2640	1300	9300
13	1160	1200	3700	1480	480	1900	3630	1200	12000
14	1140	1000	3100	1470	500	2000	3160	1100	9400
15	1090	920	2700	1500	520	2100	2800	1300	9800
16	1070	730	2100	1480	530	2100	3030	1600	13000
17	1090	710	2100	1500	490	2000	3480	1500	14000
18	1120	690	2100	1420	500	1900	4150	1300	15000
19	1120	730	2200	1230	540	1800	4140	1300	15000
20	1190	650	2100	1240	480	1600	3140	1400	12000
21	1220	640	2100	1390	450	1700	3000	1400	11000
22	1220	640	2100	1370	460	1700	3220	1400	12000
23	1250	650	2200	1400	450	1700	3430	1300	12000
24	1280	640	2200	1380	460	1700	2540	1300	8900
25	1390	590	2200	1580	450	1900	2520	1100	7500
26	1400	560	2100	1470	450	1800	2430	880	5800
27	1390	560	2100	1500	440	1800	2180	900	5300
28	1420	550	2100	1440	410	1600	2530	960	6600
29	1410	550	2100	---	---	---	2240	1000	6000
30	1390	530	2000	---	---	---	2380	1100	7100
31	1390	530	2000	---	---	---	2500	940	6300
TOTAL	34670	---	74490	39540	---	50800	79610	---	254350

06465500 NIOBRARA RIVER NEAR VERDEL, NE--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		APRIL			MAY			JUNE	
1	2570	780	5400	1380	1200	4500	1670	1600	7200
2	2660	660	4700	1490	1400	5600	1420	1700	6500
3	2510	810	5500	1370	1500	5500	1350	1600	5800
4	2350	1000	6300	1320	1500	5300	1220	1300	4300
5	2210	1200	7200	1270	1400	4800	1210	1300	4200
6	2350	1300	8200	1210	1200	3900	1230	1300	4300
7	2330	1000	6300	1250	1200	4000	1500	1200	4900
8	2250	630	3800	1470	1200	4800	1910	1200	6200
9	2130	860	4900	1890	1200	6100	1470	1500	6000
10	1940	1200	6300	2300	1200	7500	1930	1800	9400
11	2220	980	5900	2240	1400	8500	1630	1400	6200
12	2800	640	4800	1950	1600	8400	1320	860	3100
13	2850	1100	8500	1790	1600	7700	1140	1200	3700
14	2640	1900	14000	1680	1600	7300	1180	1800	5700
15	2400	1600	10000	1630	1500	6600	1090	1800	5300
16	2170	970	5700	1540	1400	5800	1110	1600	4800
17	1930	850	4400	1630	1500	6600	1330	1500	5400
18	1870	940	4700	1500	1700	6900	1820	1500	7400
19	1740	960	4500	1630	1500	6600	1900	1600	8200
20	1910	970	5000	1590	1100	4700	1700	1600	7300
21	1820	1100	5400	1500	990	4000	1670	1300	5900
22	1680	1100	5000	1510	980	4000	1510	850	3500
23	1530	810	3300	1420	1100	4200	1710	830	3800
24	1470	380	1500	1420	960	3700	2240	1000	6000
25	1500	240	970	1370	1000	3700	1610	1200	5200
26	1550	230	960	1320	1300	4600	1890	1300	6600
27	1490	230	930	1260	1400	4800	1710	1100	5100
28	1490	230	930	1250	1400	4700	1790	840	4100
29	1650	240	1100	1200	1500	4900	1700	1200	5500
30	1510	300	1200	1540	1500	6200	1830	1800	8900
31	---	---	---	2120	1500	8600	---	---	---
TOTAL	61520	---	147390	48040	---	174500	46790	---	170500

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JULY			AUGUST			SEPTEMBER	
1	1610	2000	8700	1170	1300	4100	1000	2200	5900
2	1470	2000	7900	1060	2000	5700	1040	2600	7300
3	1320	1900	6800	976	1600	4200	892	2600	6300
4	1300	1700	6000	908	720	1800	860	2500	5800
5	1590	1900	8200	849	780	1800	814	850	1900
6	1530	2200	9100	841	1000	2300	892	1500	3600
7	1730	1800	8400	796	1000	2100	829	1900	4300
8	1300	1200	4200	750	830	1700	946	1800	4600
9	1120	680	2100	748	670	1400	1430	1700	6600
10	1120	700	2100	742	520	1000	995	1500	4000
11	1060	2100	6000	761	1000	2100	1090	1300	3800
12	1020	3600	9900	754	1600	3300	1810	1100	5400
13	948	2800	7200	795	1000	2100	2430	1200	7900
14	915	1000	2500	874	460	1100	1750	1500	7100
15	1130	820	2500	958	800	2100	1290	1500	5200
16	1180	1300	4100	1000	1300	3500	1120	1400	4200
17	1270	1400	4800	947	1200	3100	1080	1400	4100
18	1130	1200	3700	829	820	1800	1530	1500	6200
19	1070	1400	4000	1020	920	2500	1450	3000	12000
20	1070	1800	5200	1180	1300	4100	1330	5200	19000
21	1110	1700	5100	1130	1400	4300	884	4900	12000
22	983	1400	3700	1160	1400	4400	959	3800	9800
23	946	1000	2600	1440	1800	7000	906	3500	8600
24	1050	640	1800	1260	2400	8200	900	3500	8500
25	1070	750	2200	1120	2100	6400	936	1300	3300
26	1030	950	2600	1120	1300	3900	949	2100	5400
27	1060	1200	3400	1040	1200	3400	911	2400	5900
28	1200	1500	4900	1010	1300	3500	895	2600	6300
29	1520	1100	4500	978	1400	3700	921	2200	5500
30	1440	390	1500	918	1400	3500	946	1600	4100
31	1180	640	2000	884	1800	4300	---	---	---
TOTAL	37472	---	147700	30018	---	104400	33785	---	194600

06466500 BAZILE CREEK NEAR NIOBRARA, NE

LOCATION (REVISED).--Lat 42°45'26", long 97°56'50", in SW1/4 sec.17, T.32 N., R.5 W., Knox County, Hydrologic Unit 10170101, on left bank 60 ft (18 m) shoreward and 20 ft (6 m) downstream from centerline of bridge on State Highway 12, 2.5 mi (4.0 km) upstream from mouth and 4.5 mi (7.2 km) east of Niobrara.

DRAINAGE AREA.--440 mi² (1,140 km²), approximately.

PERIOD OF RECORD.--May 1952 to current year. Records for October 1931 to September 1932, published in WSP 731, have been found to be unreliable and should not be used.

REVISED RECORDS.--WSP 1279: 1952. WSP 1729: 1958(M). See also PERIOD OF RECORD.

GAGE (REVISED).--Water-stage recorder and nonrecording gage read once daily. Datum of gage is 1,210.81 ft (369.055 m) National Geodetic Vertical Datum of 1929. Prior to Dec. 16, 1952, nonrecording gage only, and Dec. 16, 1952, to June 16, 1957, water-stage recorder at downstream end of right pier, above 4.2 ft (1.28 m), at present site at datum 4 ft (1.2 m) higher. June 17, 1957, to Sept. 14, 1958, water-stage recorder above 8.2 ft (2.50 m) at present datum. Sept. 15, 1958 to Oct. 17, 1978, water-stage recorder at downstream end of left pier, above 4.3 ft (1.31 m), at present site and datum.

REMARKS.--Records good except those for winter period, which are poor. Minor diversions for irrigation above station.

AVERAGE DISCHARGE.--27 years, 82.5 ft³/s (2.336 m³/s), 59,770 acre-ft/yr (73.7 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 68,600 ft³/s (1,940 m³/s) June 16, 1957, gage height, 19.96 ft (6.084 m), present datum, from high point on surge, from rating curve extended above 6,500 ft³/s (184 m³/s) on basis of contracted-opening measurements at gage heights 15.36 ft (4.682 m) and 19.96 ft (6.084 m), present datum; maximum gage height, 20.25 ft (6.172 m) Feb. 19, 1971, backwater from ice; no flow July 24, 25, Aug. 30, 1976.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 19, 1951, reached a stage of 15.36 ft (4.682 m), present datum, from floodmarks, discharge, 24,400 ft³/s (691 m³/s) on basis of contracted-opening measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,630 ft³/s (74.5 m³/s) Aug. 19, at 1300, gage height, 14.85 ft (4.526 m) from graph based on partial recorded trace and observer readings, no other peak above base of 2,000 ft³/s (56.6 m³/s); maximum gage height, 15.64 ft (4.767 m) Mar. 24, ice jam; minimum daily discharge, 10 ft³/s (0.28 m³/s) Dec. 31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	30	34	12	23	36	80	64	45	34	126	36
2	19	30	32	13	24	36	78	64	44	32	64	34
3	22	30	33	14	26	31	72	59	42	33	42	32
4	26	29	34	13	28	33	68	56	39	32	38	30
5	26	29	42	12	30	37	60	56	37	31	32	25
6	29	31	40	13	30	39	64	56	34	30	28	26
7	29	32	38	13	31	41	58	53	33	31	26	30
8	28	33	36	15	28	43	57	65	37	33	27	27
9	27	33	35	14	30	41	62	94	48	33	27	24
10	28	32	38	14	32	41	76	206	60	31	25	24
11	28	32	40	16	30	44	100	316	48	29	20	25
12	28	31	42	13	30	47	127	185	44	27	19	37
13	31	32	40	11	32	46	137	112	40	25	20	40
14	30	32	41	11	36	46	100	89	35	25	20	40
15	31	33	42	12	26	45	78	77	33	24	26	36
16	30	35	38	13	24	46	67	72	38	26	27	27
17	30	33	40	16	27	50	63	64	46	29	25	27
18	31	32	42	19	33	49	60	75	52	26	25	28
19	31	29	39	25	37	47	55	86	44	26	1170	29
20	30	27	36	27	37	44	56	80	40	252	1010	26
21	29	29	36	29	38	46	55	67	36	37	447	26
22	31	32	34	28	40	240	55	60	52	32	126	25
23	31	34	27	26	36	1200	56	51	57	32	90	24
24	28	35	31	27	35	1900	56	50	50	44	66	24
25	28	34	31	26	38	1600	69	49	44	43	50	24
26	29	32	27	25	39	654	65	46	38	34	46	23
27	30	29	25	24	36	167	69	44	48	31	85	22
28	31	28	25	23	34	120	64	42	145	33	60	24
29	31	32	22	22	---	100	65	40	56	37	46	25
30	29	35	15	22	---	90	61	43	38	116	41	24
31	29	---	10	22	---	80	---	46	---	192	35	---
TOTAL	884	945	1045	570	890	7039	2133	2467	1403	1440	3889	844
MEAN	28.5	31.5	33.7	18.4	31.8	227	71.1	79.6	46.8	46.5	125	28.1
MAX	31	35	42	29	40	1900	137	316	145	252	1170	40
MIN	19	27	10	11	23	31	55	40	33	24	19	22
AC-FT	1750	1870	2070	1130	1770	13960	4230	4890	2780	2860	7710	1670

CAL YR 1978 TOTAL 25431 MEAN 69.7 MAX 2000 MIN 10 AC-FT 50440
WTR YR 1979 TOTAL 23549 MEAN 64.5 MAX 1900 MIN 10 AC-FT 46710

06467000 LEWIS AND CLARK LAKE NEAR YANKTON, SD 1979

LOCATION.--Lat 42°50'56", long 97°28'54", in SW1/4 sec.7, T.33 N., R.1 E., Cedar County, Nebraska, Hydrologic Unit 10170101, in powerhouse of Gavins Point Dam on Missouri River, 3.75 mi (6.03 km) southwest of Yankton, 13.6 mi (21.9 km) upstream from James River, 32.5 mi (52.3 km) downstream from Niobrara River, and at mi 811.0 (1,304.9 km).

DRAINAGE AREA.--279,500 mi^2 (723,900 km^2), approximately.

PERIOD OF RECORD.--July 1955 to current year (monthend contents only). Prior to October 1955, published as Gavins Point Reservoir near Yankton.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to Dec. 9, 1955, recorder at temporary location on wall of intake structure unit 3.

REMARKS.--Reservoir is formed by earthfill dam; storage began in July 1955. Maximum capacity, 541,000 acre-ft (0.667 km^3) below elevation 1,210.0 ft (368.81 m), top of spillway gates. Normal maximum, 477,000 acre-ft (0.588 km^3) below elevation 1,208.0 ft (368.20 m). Inactive storage, 156,000 acre-ft (0.192 km^3) below elevation 1,195.0 ft (364.24 m). Dead storage, 18,000 acre-ft (22.2 hm^3) below elevation 1,180.0 ft (359.66 m), crest of spillway. Figures given herein represent elevations at powerhouse and total contents adjusted for wind effect.

The spillway consists of 14 taintor gates, each 40 ft (12 m) wide by 30 ft (9 m) high; spillway capacity, 280,000 ft^3/s (7,930 m^3/s) at pool elevation 1,210.0 ft (368.81 m). Crest of spillway is at elevation 1,180 ft (360 m). Normal releases are through 3 power units, installation completed in January 1957; maximum release through power units is 35,000 ft^3/s (991 m^3/s) at pool elevation 1,210.0 ft (368.81 m). Water is used for flood control, navigation, power, and incidental uses.

COOPERATION.--Elevations and contents furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 565,000 acre-ft (0.697 km^3) Apr. 1, 1960, elevation, 1,210.7 ft (369.02 m), affected by wind; minimum since initial filling, 61,950 acre-ft (76.4 hm^3) Apr. 23, 1956, elevation, 1,188.1 ft (362.13 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 477,000 acre-ft (0.588 km^3) Jan. 12, elevation, 1,208.8 ft (368.44 m); minimum, 345,000 acre-ft (0.425 km^3) Feb. 26, elevation, 1,204.0 ft (366.98 m).

MONTHEND ELEVATION AND CONTENTS AT 2400 HOURS, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	1,207.7	447,000	-
Oct. 31	1,208.1	459,000	+12,000
Nov. 30	1,207.7	445,000	-14,000
Dec. 31	1,206.9	423,000	-22,000
CAL YR 1978	-	-	-48,000
Jan. 31	1,207.7	447,000	+24,000
Feb. 28	1,204.2	349,000	-98,000
Mar. 31	1,204.7	364,000	+15,000
Apr. 30	1,204.5	362,000	-2,000
May 31	1,205.3	380,000	+18,000
June 30	1,206.2	403,000	+23,000
July 31	1,207.5	440,000	+37,000
Aug. 31	1,207.8	448,000	+8,000
Sept. 30	1,208.1	458,000	+10,000
WTR YR 1979	-	-	+11,000

NOTE.--Reservioir frozen over Dec. 7 to Apr. 10.

06467500 MISSOURI RIVER AT YANKTON, SD

LOCATION.--Lat 42°51'58", long 97°23'37", in SW1/4SW1/4 sec.18, T.93 N., R.55 W., Yankton County, Hydrologic Unit 10170101, near left bank in downstream end of left pier of Meridian Highway Bridge on U.S. Highway 81, 5.2 mi (8.4 km) downstream from Gavins Point Dam, 6.0 mi (9.7 km) upstream from James River, and at mi 805.8 (1.296.5 km).

DRAINAGE AREA.--279,500 mi² (723,900 km²), approximately.

PERIOD OF RECORD.--October 1930 to current year. Monthly discharge only for some periods, published in WSP 1309. Gage-height records collected at same site March 1873 to November 1886, March 1905 to May 1908 (fragmentary), August 1921 to date (except winter months prior to 1932), are contained in reports of the National Weather Service.

GAGE.--Water-stage recorder. Datum of gage is 1,139.68 ft (347.374 m) National Geodetic Vertical Datum of 1929. Prior to Sept. 20, 1932, nonrecording gage, and Sept. 20, 1932, to Mar. 9, 1967, water-stage recorder at present site and at datum 20.0 ft (6.10 m) higher.

REMARKS.--Records good. Flow completely regulated by Lewis and Clark Lake 5.2 mi (8.4 km) upstream since July 1955 (see station 06467000). Many diversions for irrigation and water supply above station. Corps of Engineers gage-height telemeter at station. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--49 years, 26,350 ft³/s (746.2 m³/s), 19,090,000 acre-ft/yr (23.5 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 480,000 ft³/s (13,600 m³/s) Apr. 13, 1952; maximum gage height, 35.5 ft (10.82 m) Apr. 13, 14, 1952 (present datum); minimum daily discharge, 2,700 ft³/s (76.5 m³/s) Nov. 15, 16, 1943.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 50.5 ft (15.39 m) Apr. 5, 1881 (ice jam), present datum.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 53,700 ft³/s (1,520 m³/s) Oct. 12, gage height, 21.25 ft (6.489 m); minimum daily, 9,310 ft³/s (264 m³/s) Mar. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	51900	52800	49800	23000	22800	21500	20800	36800	41100	37300	37300	32700
2	51800	52900	46100	23000	23000	20000	21400	33800	41200	37200	37200	32900
3	51700	52900	42300	23000	23000	18800	23800	31500	41200	37200	37300	32900
4	51600	53100	38700	23000	23000	15000	25800	34500	41600	37200	37300	32900
5	51400	53000	33000	22900	23000	15000	27800	36800	42700	37100	37300	32700
6	51500	53000	30000	22900	23000	15000	29300	37000	43300	37000	37300	32500
7	51600	52200	27000	23000	23000	15000	29400	36900	43600	36800	37300	32500
8	51700	52800	24000	23000	23000	15000	29300	36900	43500	36700	37300	32400
9	52700	52900	23000	23000	22900	15000	29500	37000	43500	36700	37600	32300
10	53400	52800	23000	21700	23000	15000	30100	36900	43600	36700	37400	32400
11	53400	52600	22900	17000	23000	15000	30700	36900	43500	37800	37300	33000
12	53500	52900	23000	17000	23000	15000	29900	37000	43500	39400	37300	33000
13	53300	52800	22900	17000	23000	16000	29100	37000	43700	39200	37300	34200
14	53300	52700	22900	17000	23000	15800	29200	36800	43900	39200	37400	36600
15	53300	52800	23000	17000	23000	15800	29300	37700	43700	39200	37400	37100
16	53200	52900	23000	17000	23000	15700	29500	39500	42500	39400	37400	37300
17	53200	52700	23000	17000	23000	15700	28600	40200	41800	39500	37400	37400
18	53200	52000	23000	17000	23000	15700	26600	40200	41800	39700	37500	37600
19	53200	52900	23000	17000	23000	13400	27300	40200	41500	38400	37800	37500
20	53200	52900	23000	18000	23000	9310	28800	40200	40000	36600	37800	38000
21	53200	53000	23000	18000	23000	11400	29000	40200	39500	36700	36000	38500
22	53200	53000	23000	18000	23000	11500	28900	40200	39000	36800	33000	39000
23	53000	52800	23000	18500	23000	11300	28900	40700	37300	36800	32400	39000
24	53000	52800	23000	20000	23000	11300	29600	40800	37200	36800	31000	39000
25	53000	52200	23000	21000	23000	11400	30700	40900	37100	36900	31200	39000
26	53000	53000	23000	22000	22900	12200	31100	40900	37100	36800	31100	40800
27	53000	53000	23000	22900	22900	14600	32100	41000	37100	37000	31100	40700
28	53000	53100	23000	22900	22900	16700	33000	41200	37100	36900	31100	40000
29	53000	53100	23000	22800	---	19300	34100	41200	37100	37100	31700	39600
30	53200	52400	23000	22800	---	20800	35800	41300	37200	37100	32800	40000
31	52900	---	23000	22800	---	20800	---	41100	---	37100	32700	---
TOTAL	1635600	1584000	819600	631200	643400	474010	869400	1193300	1226900	1164300	1102000	1083500
MEAN	52760	52800	26440	20360	22980	15290	28980	38490	40900	37560	35550	36120
MAX	53500	53100	49800	23000	23000	21500	35800	41300	43900	39700	37800	40800
MIN	51400	52000	22900	17000	22800	9310	20800	31500	37100	36600	31000	32300
AC-FT	3244000	3142000	1626000	1252000	1276000	940200	1724000	2367000	2434000	2309000	2186000	2149000

CAL YR 1978 TOTAL 12953000 MEAN 35490 MAX 53500 MIN 12300 AC-FT 25690000
WTR YR 1979 TOTAL 12427210 MEAN 34050 MAX 53500 MIN 9310 AC-FT 24650000

06478518 BOW CREEK NEAR ST. JAMES, NE

LOCATION.--Lat 42°43'48", long 97°08'53", in SE1/4SE1/4 sec.24, T.32 N., R.2 E., Cedar County, Hydrologic Unit 10170101, on right downstream end of bridge on State Highway 12, 0.25 mi (0.40 km) west of intersection of St. James road and State Highway 12, 0.7 mi (1.1 km) south of St. James.

DRAINAGE AREA.--304 mi² (787 km²).

PERIOD OF RECORD.--October 1978 to September 1979.

GAGE.--Water-stage recorder. Altitude of gage is 1,190 ft (363 m), from topographic map.

REMARKS.--Records good except those for winter period, which are poor.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,840 ft³/s (137 m³/s) Aug. 19, gage height, 9.38 ft (2.859 m); minimum daily, 7.4 ft³/s (0.21 m³/s) Jan. 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	26	15	13	15	25	85	54	44	65	101	61
2	23	25	14	14	16	27	85	55	44	61	85	58
3	24	26	13	15	15	24	76	54	43	56	76	58
4	25	26	14	14	15	26	75	54	40	56	69	55
5	26	26	18	13	17	27	74	53	38	51	64	46
6	26	26	17	14	19	28	69	53	37	50	62	117
7	27	27	16	12	18	26	70	53	36	49	57	56
8	26	27	16	11	18	28	74	56	35	48	103	48
9	24	26	17	12	18	29	67	74	39	46	70	48
10	23	26	20	12	19	32	66	520	46	44	57	45
11	22	26	25	12	21	23	80	143	52	44	54	45
12	23	27	29	13	20	25	86	109	52	43	52	73
13	23	28	28	11	20	38	75	96	51	41	51	74
14	22	23	29	9.0	21	43	73	91	55	39	51	49
15	22	24	30	7.4	19	60	72	81	55	39	49	50
16	22	23	29	7.6	15	100	68	76	58	39	47	48
17	22	22	27	7.8	16	200	66	73	69	37	47	44
18	23	17	28	8.4	20	250	65	74	60	37	150	46
19	23	14	28	10	24	90	66	68	58	36	2030	49
20	24	14	28	14	22	100	70	59	84	36	179	48
21	24	14	29	13	22	120	65	57	59	33	210	46
22	23	15	30	13	24	250	58	59	64	35	119	41
23	24	16	28	12	23	200	59	58	98	36	103	45
24	24	15	23	12	20	150	61	55	63	34	93	180
25	25	16	25	14	20	110	70	54	56	34	73	48
26	25	14	26	16	24	110	66	54	51	35	200	45
27	25	13	28	19	25	120	60	52	496	37	140	41
28	24	12	30	18	24	110	59	51	216	34	90	43
29	25	14	28	17	---	100	58	48	88	34	70	44
30	24	15	25	18	---	90	55	97	73	1420	66	40
31	25	---	19	16	---	80	---	54	---	181	63	---
TOTAL	741	623	732	398.2	550	2641	2073	2535	2260	2830	4681	1685
MEAN	23.9	20.8	23.6	12.8	19.6	85.2	69.1	81.8	75.3	91.3	151	56.2
MAX	27	28	30	19	25	250	86	520	496	1420	2030	180
MIN	22	12	13	7.4	15	23	55	48	35	33	47	40
AC-FT	1470	1240	1450	790	1090	5240	4110	5030	4480	5610	9280	3340

WTR YR 1979 TOTAL 21749.2 MEAN 59.6 MAX 2030 MIN 7.4 AC-FT 43140

06486000 MISSOURI RIVER AT SIOUX CITY, IA
(National stream-quality accounting network station)

LOCATION.--Lat 42°29'10", long 96°24'47", in NW1/4SE1/4 sec.16, T.29 N., R.9 E., sixth principal meridian, Dakota County, Nebraska, Hydrologic Unit 10230001, on right bank on upstream side of bridge on U.S. Highway 77 at South Sioux City, NE, 2.0 mi (3.2 km) downstream from Big Sioux River and at mi 732.3 (1,178.3 km).

DRAINAGE AREA.--314,600 mi² (814,800 km²), approximately.

PERIOD OF RECORD.--October 1897 to current year in reports of Geological Survey. Prior to October 1928 and October 1931 to September 1938, monthly discharges only published in WSP 1310. January 1879 to December 1890 (monthly discharge only) in House Document 238, 73rd Congress, 2d session, Missouri River. Gage-height records collected in this vicinity September 1878 to December 1899 are contained in reports of Missouri River Commission and since July 1889 are contained in reports of the National Weather Service.

REVISED RECORDS.--WSP 716: 1929-30. WSP 876: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,056.98 ft (322.168 m) National Geodetic Vertical Datum of 1929. Sept. 2, 1878, to Dec. 31, 1905, nonrecording gages at various locations within 1.7 mi (2.7 km) of present site and at various datums. Jan. 1, 1906, to Feb. 14, 1935, nonrecording gage, and Feb. 15, 1935 to Sept. 30, 1969, water-stage recorder at present site at datum 19.98 ft (6.090 m) higher, and Oct. 1, 1969 to Sept. 30, 1970 at datum 20.00 ft (6.096 m) higher.

REMARKS.--Records good except those for winter period, which are poor. Flow regulated by upstream main-stem reservoirs. National Weather Service gage height telemeter at station.

AVERAGE DISCHARGE.--82 years, 32,070 ft³/s (908.2 m³/s), 23,230,000 acre-ft/yr (28.6 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 441,000 ft³/s (12,500 m³/s) Apr. 14, 1952, gage height, 24.28 ft (7.401 m), datum then in use; minimum, 2,500 ft³/s (70.8 m³/s) Dec. 29, 1941; minimum gage height observed, 10.68 ft (3.255 m), Dec. 6, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 57,800 ft³/s (1,640 m³/s) Nov. 5, gage height, 23.48 ft (7.157 m); minimum daily, 15,000 ft³/s (425 m³/s) Mar. 22; minimum gage height, 13.52 ft (4.121 m), Jan. 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	53200	56300	55400	24500	23500	23500	37000	41200	45500	41700	39400	37900
2	53600	56500	52700	24500	23500	23000	36500	43500	45800	41500	40000	36700
3	54100	56900	47500	24500	23500	22000	36300	42200	45900	42100	40200	35700
4	54500	57300	43400	24000	23500	20000	37200	38600	46100	41600	39300	35500
5	55000	57600	39800	24000	23500	19000	38300	40700	46000	40900	38900	35800
6	54400	56900	35100	24000	23500	18000	39600	42800	46600	40000	38400	37500
7	53700	56500	32200	24000	23500	17500	39700	41500	47100	40100	37600	35300
8	53700	56000	30000	24000	23500	17500	39700	40900	46700	40200	38100	34900
9	53900	56500	28000	24000	23500	17000	38200	40800	47700	40400	39800	35100
10	55000	56900	27000	24000	23500	17000	36900	43600	48600	40000	39600	35300
11	56000	56600	26700	24000	23500	16500	37100	45700	48500	39500	40500	35400
12	56100	56600	25600	22000	23500	16500	38100	45200	47700	39500	42600	37400
13	56300	56500	25700	19000	23500	16500	37000	45200	46900	41600	43500	38700
14	56100	56200	25400	18500	23500	16500	35900	46800	46000	41000	42400	39200
15	56800	55900	26100	18500	23500	16500	37400	47600	46100	41300	40700	42500
16	56500	55700	26400	18000	24000	16500	40400	46600	46100	41700	40600	43400
17	56500	56000	26300	18000	25000	17000	42800	47500	44800	42600	40500	42500
18	57000	56000	27200	18000	25000	20000	41700	47600	43600	42500	39700	41200
19	57000	54800	26900	18000	25000	30000	38900	47100	44100	42400	50100	40000
20	57400	55600	27000	17500	25000	20000	39000	46300	46100	41600	44200	39800
21	57000	55800	26000	17500	24500	17000	40500	46400	44300	38800	42100	40400
22	56500	55900	27200	17500	24500	15000	40000	46400	43800	39300	40800	40400
23	55300	55700	27000	18000	24500	25000	39500	46200	43600	39400	37300	41300
24	55600	55500	25800	18000	24000	32000	38900	46700	41300	39700	36800	41700
25	56200	55500	27100	18500	24000	35200	39000	46500	41200	40500	35700	41400
26	56500	55700	27000	20000	23500	37700	39400	46300	40900	40700	38300	41200
27	57000	56900	26500	21000	23500	40400	38000	46100	41900	40800	38000	41300
28	56600	56800	26500	22000	23500	43000	36300	46200	42400	39800	35800	41400
29	56200	57200	26500	23000	---	38600	39300	46500	42200	39200	36100	40800
30	56400	56200	25000	23500	---	39100	39900	47300	41700	41000	36800	39700
31	56500	---	25000	23500	---	39100	---	46900	---	41200	38400	---
TOTAL	1726600	1688500	944000	655500	668500	742600	1158500	1392900	1349200	1262600	1232200	1169400
MEAN	55700	56280	30450	21150	23880	23950	38620	44930	44970	40730	39750	38980
MAX	57400	57600	55400	24500	25000	43000	42800	47600	48600	42600	50100	43400
MIN	53200	54800	25000	17500	23500	15000	35900	38600	40900	38800	35700	34900
AC-FT	3425000	3349000	1872000	1300000	1326000	1473000	2298000	2763000	2676000	2504000	2444000	2320000

CAL YR 1978 TOTAL 14340900 MEAN 39290 MAX 61200 MIN 14300 AC-FT 28450000
WTR YR 1979 TOTAL 13990500 MEAN 38330 MAX 57600 MIN 15000 AC-FT 27750000

06601000 OMAHA CREEK AT HOMER, NE

LOCATION.--Lat 42°19'29", long 96°29'43", in SW1/4SE1/4 sec.11, T.27 N., R.8 E., Dakota County, Hydrologic Unit 10230001, on left bank 80 ft (24 m) downstream from bridge on main street of Homer.

DRAINAGE AREA.--168 mi² (435 km²).

PERIOD OF RECORD.--October 1945 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WDR NE-72: Drainage area. WDR NE-75-1: 1971-73.

GAGE.--Water-stage recorder. Datum of gage is 1,082.45 ft (329.931 m) National Geodetic Vertical Datum of 1929. Prior to Aug. 4, 1952, at bridge 0.5 mi (0.8 km) downstream at datum 8.03 ft (2.448 m) lower. Aug. 4, 1952, to Nov. 3, 1966, at site 80 ft (24 m) upstream at present datum.

REMARKS.--Records good except those for winter period, which are poor.

AVERAGE DISCHARGE.--34 years, 34.0 ft³/s (0.963 m³/s), 24,630 acre-ft/yr (30.4 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,100 ft³/s (513 m³/s) Feb. 19, 1971, gage height, 26.47 ft (8.068 m), from floodmark, from rating curve extended above 3,700 ft³/s (105 m³/s) on basis of slope-area measurements at gage heights 16.38 ft (4.993 m) and 23.62 ft (7.199 m); minimum daily, 0.1 ft³/s (0.003 m³/s) Sept. 16, 18, 19, 1948, Sept. 9, 13, 14, 1955, Oct. 7, 8, 1957.

EXTREMES OUTSIDE PERIOD OF RECORD.--Greatest flood known occurred June 4, 1940, stage, about 32.5 ft (9.91 m), present site and datum, discharge estimated as 51,000 ft³/s (1,440 m³/s) at site 2.5 miles upstream from present site.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,000 ft³/s (28.3 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Mar. 18	----	2360	66.8	*a12.20	3.719
Sept. 5	2400	1820	51.5	9.25	2.819

a Ice jam.

Minimum daily discharge, 1.9 ft³/s (0.054 m³/s) Feb. 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.4	3.4	5.2	3.2	2.7	2.1	31	20	15	10	9.4	19
2	2.0	3.9	4.4	3.5	3.3	2.7	30	50	15	11	17	14
3	2.2	4.1	3.5	3.6	3.5	2.5	29	28	15	11	27	8.3
4	2.1	3.9	5.0	3.7	3.4	2.4	26	23	14	11	11	7.3
5	2.3	3.9	6.8	3.5	3.4	2.8	26	22	12	11	8.5	96
6	2.1	3.7	6.4	4.0	3.0	3.3	21	20	12	11	7.6	314
7	2.1	3.4	6.4	3.9	2.3	3.0	23	20	12	11	7.5	24
8	2.3	3.4	5.0	3.9	2.4	3.1	23	23	12	12	6.7	13
9	2.5	3.7	5.0	4.2	2.3	3.7	23	24	20	12	6.9	10
10	2.4	3.9	6.0	5.7	2.5	3.3	21	104	25	12	7.4	7.8
11	2.2	3.9	6.6	3.7	2.6	4.5	25	42	17	11	6.9	6.6
12	2.4	4.5	7.0	4.0	2.4	7.0	42	33	14	10	6.4	11
13	2.8	5.0	6.6	3.8	2.7	15	29	43	12	9.9	7.1	16
14	2.8	4.9	6.2	2.5	2.9	80	24	29	11	9.6	8.5	11
15	2.6	4.1	6.4	3.0	2.8	150	23	25	10	9.5	8.2	7.8
16	2.0	4.1	5.4	3.0	2.0	300	22	24	36	9.5	8.7	7.3
17	2.3	4.6	5.0	3.7	2.2	1200	21	22	38	8.4	9.2	6.6
18	3.2	4.2	5.6	3.6	2.4	1500	20	21	24	6.7	8.9	5.9
19	2.9	3.9	5.4	3.9	3.0	700	19	24	19	6.7	29	5.3
20	2.9	3.9	5.0	3.5	2.9	200	22	22	43	7.7	69	5.7
21	3.1	3.7	4.5	3.6	2.8	140	23	20	18	7.2	74	5.8
22	4.1	3.9	4.8	4.0	3.0	120	19	19	13	11	24	5.1
23	4.9	3.9	4.5	4.0	2.5	70	18	18	14	11	12	5.5
24	4.6	3.8	4.0	3.0	1.9	40	18	17	14	24	8.5	5.2
25	3.9	3.7	4.2	3.5	2.1	36	26	18	13	17	8.0	5.2
26	3.7	3.6	4.1	3.7	2.3	32	31	18	13	9.2	37	4.9
27	4.1	3.4	3.6	3.3	2.4	30	23	17	13	8.5	43	5.1
28	3.2	3.2	4.2	3.4	2.2	43	21	17	12	8.7	14	5.1
29	3.4	7.0	4.2	3.0	---	51	20	17	12	9.4	11	5.3
30	4.4	5.2	3.5	3.3	---	43	19	15	11	13	9.4	4.9
31	3.4	---	3.5	3.1	---	34	---	16	---	12	8.4	---
TOTAL	91.3	121.8	158.0	111.8	73.9	4824.4	718	811	509	332.0	520.2	648.7
MEAN	2.95	4.06	5.10	3.61	2.64	156	23.9	26.2	17.0	10.7	16.8	21.6
MAX	4.9	7.0	7.0	5.7	3.5	1500	42	104	43	24	74	314
MIN	2.0	3.2	3.5	2.5	1.9	2.1	18	15	10	6.7	6.4	4.9
AC-FT	181	242	313	222	147	9570	1420	1610	1010	659	1030	1290

CAL YR 1978 TOTAL 10828.2 MEAN 29.7 MAX 1980 MIN 1.9 AC-FT 21480
WTR YR 1979 TOTAL 8920.1 MEAN 24.4 MAX 1500 MIN 1.9 AC-FT 17690

06601100 BLACKBIRD CREEK NEAR MACY, NE

LOCATION.--Lat 42°06'22", long 96°18'57" in NW1/4SE1/4 sec.29, T.25 N., R.10 E., Thurston County, Hydrologic Unit 10230001, on left bank 15 ft (5 m) downstream from bridge on county road 2 mi (3 km) east of Macy and 0.5 mi (0.8 km) south of the Omaha Indian tribal farm.

DRAINAGE AREA.--102 mi² (264 km²).

PERIOD OF RECORD.--October 1978 to September 1979.

GAGE.--Water-stage recorder. Datum of gage is 1,089.05 ft (319.750 m) National Geodetic Vertical Datum of 1929.

REMARKS.—Records good except those for winter period, which are poor.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,820 ft³/s (108 m³/s) May 29, gage height, 13.00 ft (3.962 m); minimum daily, 4.2 ft³/s (0.12 m³/s) Sept. 24, 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.8	6.2	8.2	5.4	5.8	9.0	24	19	18	8.8	5.6	70
2	5.0	6.4	7.8	5.6	5.6	10	25	40	18	9.0	6.2	9.0
3	4.6	6.5	7.0	5.8	5.8	9.8	24	26	16	8.0	6.2	7.0
4	4.8	6.3	7.0	5.6	5.6	10	27	20	15	7.9	6.0	6.6
5	4.8	6.1	7.4	5.4	5.6	15	29	20	14	7.9	5.4	6.0
6	4.6	5.7	7.0	5.6	6.0	17	21	23	13	8.2	5.6	11
7	5.0	6.0	6.6	5.6	5.8	15	22	23	11	8.9	5.6	6.6
8	4.8	6.3	5.6	5.4	5.8	17	23	24	13	9.4	5.2	8.8
9	4.8	6.7	5.8	5.6	5.8	20	21	28	24	9.2	6.0	8.2
10	4.6	6.7	6.2	5.8	5.8	25	22	62	20	9.2	5.8	6.2
11	4.4	6.4	6.4	5.8	6.0	30	26	29	14	12	5.4	5.4
12	4.2	7.5	7.0	6.0	6.4	60	38	25	14	9.5	5.6	7.7
13	4.3	7.9	6.4	5.8	6.8	130	22	30	13	7.2	5.6	11
14	4.4	8.2	6.6	5.4	7.0	220	24	25	13	6.7	6.2	5.8
15	4.5	7.9	6.6	5.4	7.2	330	21	25	12	6.9	6.6	5.0
16	4.7	7.6	6.4	5.6	6.4	300	23	25	13	7.4	6.7	5.0
17	5.0	9.5	6.2	6.0	6.6	640	25	24	15	6.9	6.9	5.2
18	5.6	8.3	6.0	6.4	6.8	350	24	28	27	6.7	6.3	4.8
19	5.8	7.4	6.0	6.8	7.0	250	24	37	30	6.5	8.1	4.8
20	6.0	7.0	6.0	7.0	7.4	150	23	27	17	6.5	6.9	4.8
21	6.4	7.4	6.0	7.0	6.4	100	20	21	11	6.5	8.5	4.4
22	6.6	7.8	5.8	6.8	6.6	90	19	20	10	10	24	4.4
23	6.9	8.2	5.6	6.4	7.0	50	20	17	11	7.7	7.9	4.4
24	6.5	9.0	5.6	6.0	7.4	48	21	14	11	16	5.8	4.2
25	5.8	8.6	5.8	6.4	7.6	46	29	13	10	9.2	8.7	4.4
26	6.1	8.0	6.0	6.6	7.8	44	29	14	9.8	6.9	124	4.2
27	6.1	7.6	6.0	7.0	8.0	34	21	14	9.7	6.2	25	4.5
28	6.2	7.4	5.8	6.6	8.0	37	18	84	9.5	6.5	14	4.6
29	6.4	8.6	5.8	6.2	---	39	17	590	11	7.2	9.0	4.6
30	6.2	8.4	5.6	6.0	---	29	16	25	8.2	15	8.0	4.6
31	6.3	---	5.4	5.8	---	25	---	21	---	8.7	7.2	---
TOTAL	166.2	221.6	195.6	186.8	184.0	3149.8	698	1393	431.2	262.7	364.0	242.8
MEAN	5.36	7.39	6.31	6.03	6.57	102	23.3	44.9	14.4	8.47	11.7	8.09
MAX	6.9	9.5	8.2	7.0	8.0	640	38	590	30	16	124	70
MIN	4.2	5.7	5.4	5.4	5.6	9.0	16	13	8.2	6.2	5.2	4.2
AC-FT	330	440	388	371	365	6250	1380	2760	855	521	722	482

WTR YR 1979 TOTAL 7495.7 MEAN 20.5 MAX 640 MIN 4.2 AC-FT 14870

06608000 TEKAMAH CREEK AT TEKAMAH, NE

LOCATION.--Lat 41°46'30", long 96°13'10", in SE1/4 sec. 19, T.21 N., R.11 E., Burt County, Hydrologic Unit 10230001, on left bank 30 ft (9 m) upstream from bridge 1 block east of U.S. Highway 73 in Tekamah.

DRAINAGE AREA.--23.0 mi² (59.6 km²).

PERIOD OF RECORD.--July 1949 to current year.

REVISED RECORDS.--WSP 1630: Drainage area.

GAGE.--Water-stage recorder and crest-stage indicator. Datum of gage is 1,032.26 ft (314.633 m) National Geodetic Vertical Datum of 1929. Prior to Sept. 15, 1949, nonrecording gage at site 30 ft (9 m) downstream at present datum.

REMARKS.--Records fair except those for winter period, which are poor.

AVERAGE DISCHARGE.--30 years, 6.50 ft³/s (0.184 m³/s), 4,710 acre-ft/yr (5.81 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,180 ft³/s (175 m³/s) June 5, 1963, gage height, 16.62 ft (5.066 m); no flow at times in some years.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 400 ft³/s (11.3 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Mar. 18	----	900	25.5	a9.39	2.862
June 18	1600	*1920	54.4	10.33	0.101

a Ice jam.

Minimum daily discharge, 30 ft³/s (0.85 m³/s) Feb. 24-26, 28, Mar. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	1.4	1.7	.40	.50	.30	9.8	7.6	3.9	3.8	3.9	39
2	1.4	1.6	1.6	.50	.60	.40	11	20	3.8	3.8	3.5	5.1
3	1.1	1.6	1.5	.50	.50	.80	9.8	9.4	3.9	3.8	3.4	2.6
4	.97	1.7	1.4	.50	.50	1.5	9.6	8.6	4.3	3.8	3.0	1.2
5	1.1	1.6	2.3	.40	.50	3.0	8.9	8.4	4.3	4.2	2.9	1.4
6	.97	1.5	1.5	.50	.60	5.0	7.9	8.2	3.4	3.5	2.7	59
7	1.1	1.3	1.3	.50	.40	8.0	7.7	7.9	3.5	3.5	2.4	5.6
8	1.2	1.4	.90	.50	.40	12	8.2	7.7	3.8	3.4	2.1	4.6
9	1.3	1.6	.90	.60	.40	18	13	7.8	6.4	3.5	1.1	2.9
10	1.3	1.4	1.0	.50	.50	25	7.5	8.3	5.7	3.5	2.3	2.3
11	1.2	1.4	1.2	.50	.50	35	9.0	7.7	3.9	4.2	1.6	1.7
12	1.2	1.7	1.4	.60	.50	50	11	7.4	3.6	3.1	1.6	3.0
13	1.7	2.0	1.2	.60	.50	80	8.2	7.4	3.3	3.1	1.3	2.7
14	1.7	1.6	1.0	.40	.60	120	7.3	7.1	3.4	2.7	1.5	2.2
15	1.4	1.4	1.2	.50	.50	180	7.1	6.8	3.0	4.0	1.8	1.1
16	1.3	1.6	1.0	.50	.40	250	6.4	6.5	3.2	2.5	1.6	.72
17	1.3	1.8	.80	.60	.30	350	7.5	6.5	3.3	2.4	1.3	.60
18	1.3	1.9	.90	.60	.40	180	6.5	9.0	261	2.2	.85	.60
19	1.4	1.2	.90	.70	.50	110	6.4	13	15	2.1	.78	.60
20	1.3	1.2	.80	.60	.40	60	7.9	6.6	7.5	2.0	.78	.60
21	1.2	1.3	.70	.60	.40	31	7.1	5.6	5.9	2.0	.64	.60
22	1.8	1.5	.80	.70	.40	97	6.8	4.9	5.5	2.1	.71	.60
23	2.1	1.5	.70	.70	.40	42	6.4	4.3	6.2	2.2	.71	.60
24	1.3	1.7	.60	.60	.30	19	6.3	4.3	5.7	2.9	.64	.60
25	1.7	1.6	.60	.60	.30	14	7.5	4.2	4.6	2.9	4.6	.60
26	1.5	1.6	.70	.80	.30	13	7.2	4.2	4.6	2.7	38	.60
27	1.1	1.5	.60	.70	.40	12	6.6	4.1	4.6	2.5	9.2	.60
28	1.1	1.4	.70	.50	.30	12	6.4	4.2	4.3	2.6	3.0	1.8
29	1.2	1.8	.50	.60	---	12	6.8	4.2	4.1	4.1	1.9	1.2
30	1.4	1.7	.40	.80	---	12	6.3	3.7	3.9	16	1.2	1.1
31	1.4	---	6.1	.60	---	10	---	4.1	---	4.6	1.3	---
TOTAL	41.24	46.5	36.90	17.70	12.30	1763.00	238.1	219.7	399.6	109.7	102.31	145.82
MEAN	1.33	1.55	1.19	.57	.44	56.9	7.94	7.09	13.3	3.54	3.30	4.86
MAX	2.1	2.0	6.1	.80	.60	350	13	20	261	16	38	59
MIN	.97	1.2	.40	.40	.30	.30	6.3	3.7	3.0	2.0	.64	.60
AC-FT	82	92	73	35	24	3500	472	436	793	218	203	289

CAL YR 1978 TOTAL 2981.38 MEAN 8.17 MAX 600 MIN .40 AC-FT 5910
WTR YR 1979 TOTAL 3132.87 MEAN 8.58 MAX 350 MIN .30 AC-FT 6210

06610000 MISSOURI RIVER AT OMAHA, NE
(National stream-quality accounting network station)

LOCATION.--Lat 41°15'32", long 95°55'20", in SE1/4NW1/4 sec.23, T.15 N., R.13 E., Douglas County, Hydrologic Unit 10230006, on right bank on left side of concrete floodwall, at foot of Douglas Street, 275 ft (84 m) downstream from Interstate 480 Highway bridge in Omaha, and at mi 615.9 (991.0 km).

DRAINAGE AREA.--322,800 mi² (836,100 km²), approximately.

PERIOD OF RECORD.--September 1928 to current year. April 1872 to December 1899 (gage heights only) in reports of the Missouri River Commission and since January 1875 (gage heights only) in reports of the National Weather Service.

REVISED RECORDS.--WSP 761: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 958.24 ft (292.072 m) National Geodetic Vertical Datum of 1929. See WSP 1730 for history of changes prior to Sept. 30, 1936.

REMARKS.--Records good except those for winter period, which are poor. Flow regulated by upstream main-stem reservoirs. National Weather Service gage-height telemeter at station.

AVERAGE DISCHARGE.--51 years, 29,740 ft³/s (842.2 m³/s), 21,550,000 acre-ft/yr (26.6 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 396,000 ft³/s (11,200 m³/s) Apr. 18, 1952, gage height, 30.20 ft (9.205 m); minimum, about 2,200 ft³/s (62.3 m³/s) Jan. 6, 1937; minimum gage height observed, -2.77 ft (-0.844 m) Jan 10, 1957, result of freezeup.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 90,000 ft³/s (2,550 m³/s) Mar. 19, gage height, 13.26 ft (4.042 m); minimum daily, 18,500 ft³/s (524 m³/s) Jan. 18-25; minimum gage height, 2.75 ft (0.838 m) Jan. 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	54100	57500	56000	26000	24000	28400	56300	43500	51100	42800	45200	45400
2	54300	58200	54400	26000	25000	29100	52700	48800	49100	42000	44000	46600
3	55100	57200	50600	25500	24000	31500	51700	50800	47700	41900	43000	43400
4	55200	57200	44300	25500	24000	25100	51800	45300	48500	41800	42600	41800
5	55400	57800	40400	25500	24500	20700	52500	42300	48500	41800	42100	41200
6	55700	56600	37000	25000	24500	20500	51600	44800	48500	41400	41800	43400
7	55300	56200	33800	25000	24500	21000	50300	48100	49600	41300	41800	42300
8	54500	56300	31400	25000	25000	20700	49500	48600	50400	41600	41600	41200
9	54700	56700	29100	25000	25000	19600	48000	49300	50400	40800	41300	39600
10	55100	57800	27100	25000	25000	19600	45800	50700	50600	40900	41200	39500
11	55700	59500	26600	25000	25000	19100	45200	54000	50300	40900	40600	39200
12	57400	58600	27400	24000	25000	20100	45500	56200	49400	41700	39800	38900
13	56900	57700	27900	21000	25000	23900	46500	55000	49900	41900	41100	39800
14	57400	57800	27400	20000	25000	25300	45900	54200	49200	44000	43500	41500
15	57600	58500	26900	19500	25000	22900	43700	55700	49000	45500	44200	41600
16	57600	57600	26000	19000	24500	22300	44500	54600	49900	44200	42500	43100
17	58000	56800	25700	19000	24000	29600	46900	54200	49800	43600	41100	45000
18	59700	56100	25500	18500	23700	51900	48400	55900	52400	43000	40900	44500
19	58700	55900	26200	18500	23900	82800	46800	56200	55300	43500	40800	43800
20	57700	54900	27800	18500	24600	68000	46600	55500	52300	42800	47500	43400
21	57700	55100	28000	18500	25200	59200	47000	53600	51600	42400	52000	43800
22	59000	55200	28100	18500	25800	51400	46100	52300	50200	41100	48800	44200
23	58800	55400	28700	18500	26800	74200	44600	51300	50100	42200	48100	44400
24	57700	55400	28600	18500	26700	80900	43200	50500	49300	42100	46000	44400
25	58100	55600	28100	18500	26300	67400	43300	50500	46200	43000	44800	43600
26	57300	56700	25800	19000	26300	56900	43600	49500	44900	42500	44200	43200
27	57600	56900	28300	20000	26600	55600	44100	48900	44400	42200	45800	43600
28	57400	57300	28700	21000	27500	55700	43100	49300	43800	42100	46700	43900
29	57000	56900	28400	22000	---	55900	42800	50300	44100	42600	44000	44100
30	57200	55600	28100	23000	---	65200	43000	50200	43500	43100	43000	43500
31	57000	---	27400	23500	---	59500	---	51200	---	45100	43300	---
TOTAL	1760900	1705000	979700	677500	702400	1284000	1411000	1581300	1470000	1315800	1353300	1283900
MEAN	56800	56830	31600	21850	25090	41420	47030	51010	49000	42450	43650	42800
MAX	59700	59500	56000	26000	27500	82800	56300	56200	55300	45500	52000	46600
MIN	54100	54900	25500	18500	23700	19100	42800	42300	43500	40800	39800	38900
AC-FT	3493000	3382000	1943000	1344000	1393000	2547000	2799000	3137000	2916000	2610000	2684000	2547000

CAL YR 1978 TOTAL 15155560 MEAN 41520 MAX 81200 MIN 6710 AC-FT 30060000
WTR YR 1979 TOTAL 15524800 MEAN 42530 MAX 82800 MIN 18500 AC-FT 30790000

06610795 PAPILLION CREEK AT FORT CROOK, NE

LOCATION.--Lat 41°07'06", long 95°55'20", in NW1/4NE1/4 sec.10, T.13 N., R.13 E., Sarpy County, Hydrologic Unit 10230006, at bridge on Capehart Road, 0.6 mile west of Offut Air Base at Fort Crook.

PERIOD OF RECORD. October 1978 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (JTU) (00070)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT 27...	0940	17	775	7.6	7.0	10	9.8	--	1433	560
NOV 13...	1145	66	624	7.7	9.5	25	8.1	11	K19700	K12400
DEC 11...	1040	82	795	7.7	.5	7	11.6	4.6	3300	6400
JAN 11...	1045	119	841	7.3	.5	5	6.9	2.6	9330	2160
FEB 05...	1145	37	825	7.5	1.0	20	5.2	11	K270000	K113000
MAR 12...	1400	508	252	7.2	2.0	270	--	9.6	2200	48000
28...	1045	121	725	8.0	10.0	35	11.4	--	5900	7600
MAY 01...	1015	75	775	8.1	12.0	20	10.9	5.4	K8500	1600
JUN 13...	1300	51	730	8.2	26.0	30	--	10	4400	350
JUL 09...	1515	104	589	7.9	27.0	25	--	7.7	K510	K140
AUG 07...	1430	34	811	8.6	34.0	15	11.1	4.9	2700	88

K Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)
OCT 27...	41	498	.68	22.9	2.3	.02	2.2	2.2	4.5	.44
NOV 13...	30	309	.53	69.3	1.9	.21	1.2	1.4	3.3	.52
DEC 11...	47	494	.67	109	3.2	.73	.67	1.4	4.6	.50
JAN 11...	46	524	.71	168	2.9	.63	.77	1.4	4.3	.48
FEB 05...	42	--	.71	52.3	1.3	4.8	1.5	6.3	7.6	2.6
MAR 12...	8.5	146	.20	200	1.5	1.3	3.4	4.7	6.2	1.3
28...	29	455	.62	149	5.0	.68	.72	1.4	6.4	.34
MAY 01...	29	435	.59	88.1	1.3	.02	.98	1.0	2.3	.37
JUN 13...	24	414	.56	57.0	3.8	.16	.94	1.1	4.9	.49
JUL 09...	24	372	.51	104	2.6	1.3	1.1	2.4	5.0	.76
AUG 07...	75	--	.76	51.2	1.5	.01	.70	.71	2.2	.47

06610795 PAPILLION CREEK AT FORT CROOK, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)
NOV									
13...	1145	260	22	72	20	31	.8	6.7	240
FEB									
05...	1145	330	31	93	24	59	1.4	7.6	300
AUG									
07...	1430	230	40	64	17	94	2.7	12	190

DATE	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P) (00666)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BORON, DIS-SOLVED (UG/L AS B) (01020)
NOV									
13...	36	.3	15	--	1.9	.38	4	200	120
FEB									
05...	94	.4	23	524	--	2.3	--	--	190
AUG									
07...	150	.5	31	558	--	.25	--	--	120

DATE	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
NOV									
13...	2	0	49	130	720	.2	5	0	34
FEB									
05...	--	--	--	120	760	--	--	--	--
AUG									
07...	--	--	--	20	50	--	--	--	--

06674500 NORTH PLATTE RIVER AT WYOMING-NEBRASKA STATE LINE

LOCATION.--Lat 41°59'25", long 104°02'57", in SW1/4NE1/4SE1/4 sec.4, T.23 N., R.58 W., Scotts Bluff County, Nebraska, Hydrologic Unit 10180009, on right bank 650 ft (198 m) upstream from bridge on Nebraska State Highway 86, 700 ft (213 m) downstream from Wyoming-Nebraska State line, and 0.5 mi (0.8 km) south of Henry, NE.

DRAINAGE AREA.--22,218 mi^2 (57,545 km^2), of which 1,929 mi^2 (4,996 km^2), is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1929 to current year.

REVISED RECORDS.--WDR WY-76-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4,021.35 ft (1,225.707 m), National Geodetic Vertical Datum of 1929. Prior to Nov. 6, 1929, nonrecording gage and Nov. 6, 1929, to Sept. 30, 1959, water-stage recorder, at site 0.5 mi (0.8 km) upstream at datum 4.42 ft (1.347 m) higher. Oct. 7, 1959 to Feb. 22, 1972, water-stage recorder, at site 0.5 mi (0.8 km) upstream at datum 3.42 ft (1.042 m) higher.

REMARKS.--Records fair except those for periods of no gage-height record, Jan. 1-17, Jan. 22 to Feb. 21, which are poor. Natural flow of stream affected by storage reservoirs, transbasin diversions, power development, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas. Gering-Mitchell Canal diverts from right bank 0.8 mi (1.3 km) upstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 17,900 ft^3/s (507 m^3/s) June 2, 1929, gage height, 7.04 ft (2.146 m), site and datum then in use; minimum daily, 13 ft^3/s (0.37 m^3/s) May 12, 1961.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,610 ft^3/s (45.6 m^3/s) July 25; gage height, 3.50 ft (1.067 m); minimum daily, 98 ft^3/s (2.78 m^3/s) May 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	411	369	319	250	230	269	245	311	698	1170	1170	672
2	396	374	310	250	230	269	245	299	647	1190	1150	634
3	387	365	310	250	230	262	248	303	634	1170	1030	598
4	369	365	303	250	230	262	245	311	616	1110	971	580
5	356	365	303	240	225	262	238	311	653	1170	971	580
6	356	365	300	240	225	262	235	307	725	1200	1060	604
7	392	365	300	240	230	269	231	295	839	1300	1120	666
8	568	365	300	240	230	276	225	303	939	1270	1240	712
9	846	361	300	240	235	269	225	331	996	1260	1300	725
10	907	361	300	240	245	266	225	356	947	1370	1310	753
11	795	356	300	250	250	266	269	361	955	1400	1340	781
12	545	356	299	250	260	262	288	299	892	1470	1360	718
13	465	352	295	250	270	255	295	319	824	1520	1320	732
14	420	348	291	245	280	252	288	311	781	1500	1400	712
15	396	348	291	245	295	252	276	303	788	1450	1440	634
16	374	339	291	250	290	252	269	288	809	1380	1420	592
17	361	335	291	250	280	252	269	169	809	1370	1370	551
18	352	335	284	250	280	248	266	126	861	1400	1360	480
19	335	331	288	245	290	252	291	116	1010	1390	1350	470
20	365	330	284	238	295	252	335	103	854	1420	1290	465
21	401	330	284	241	291	255	376	101	725	1440	1160	439
22	420	327	284	255	291	258	361	113	622	1520	907	420
23	420	335	273	250	273	255	352	116	598	1540	846	415
24	411	339	280	250	276	252	339	121	557	1590	996	439
25	406	339	284	245	276	252	331	98	512	1560	1080	454
26	406	339	284	245	276	248	344	174	475	1500	1110	449
27	392	335	288	240	276	241	356	640	517	1470	1080	387
28	396	327	280	240	273	248	348	854	802	1470	996	323
29	387	331	276	240	---	255	339	915	1110	1370	861	280
30	376	323	270	235	---	255	319	884	1090	1240	795	262
31	376	---	260	235	---	248	---	802	---	1210	753	---
TOTAL	13787	10410	9022	7589	7332	7976	8673	10340	23285	42420	35556	16527
MEAN	445	347	291	245	262	257	289	334	776	1368	1147	551
MAX	907	374	319	255	295	276	376	915	1110	1590	1440	781
MIN	335	323	260	235	225	241	225	98	475	1110	753	262
AC-FT	27350	20650	17900	15050	14540	15820	17200	20510	46190	84140	70530	32780

CAL YR 1978 TOTAL 206745 MEAN 566 MAX 2170 MIN 195 AC-FT 410100
WTR YR 1979 TOTAL 192917 MEAN 529 MAX 1590 MIN 98 AC-FT 382700

06674500 NORTH PLATTE RIVER AT WYOMING-NEBRASKA STATE LINE--Continued

WATER QUALITY RECORDS

LOCATION.--Daily water temperatures and samples for specific conductance collected at Farmers Canal diversion dam 1.0 mile downstream from discharge station.

PERIOD OF RECORD.--Water years 1966 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	TURBIDITY (JTU) (00070)	OXYGEN, DISSOLVED (MG/L) (00300)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)
OCT									
10...	900	825	8.2	10.5	10	--	K650	280	100
NOV									
07...	365	900	8.2	6.0	2	9.7	88	280	42
DEC									
05...	303	950	8.1	1.0	4	11.1	59	280	34
JAN									
05...	--	960	7.8	.0	3	11.4	K450	290	36
29...	--	850	8.1	.0	3	10.9	22	290	44
MAR									
12...	258	940	8.3	12.0	7	10.5	K7	250	12
APR									
12...	291	880	8.1	9.0	9	10.4	45	240	19
MAY									
07...	288	840	8.1	11.0	6	9.4	28	250	78
JUN									
07...	854	820	8.2	17.5	20	8.0	K220	260	110
JUL									
16...	1380	800	8.1	21.0	20	8.5	K64	270	110
AUG									
13...	1310	720	8.2	20.0	20	7.7	100	240	79
SEP									
10...	774	750	8.1	19.0	15	8.3	220	240	68

K Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	BICARBONATE (MG/L AS HCO3) (00440)	CARBONATE (MG/L AS CO3) (00445)	ALKALINITY (MG/L AS CACO3) (00410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)
OCT									
10...	79	20	75	2.0	5.5	220	0	180	230
NOV									
07...	78	19	96	2.5	7.6	290	0	240	220
DEC									
05...	83	19	110	2.8	7.7	300	0	250	230
JAN									
05...	83	20	110	2.8	8.1	310	0	250	250
29...	82	19	100	2.6	6.6	300	0	250	230
MAR									
12...	72	17	99	2.7	8.1	290	0	240	210
APR									
12...	66	18	97	2.7	8.9	270	0	220	200
MAY									
07...	68	19	68	1.9	6.7	210	0	170	190
JUN									
07...	67	22	64	1.7	6.0	180	0	150	240
JUL									
16...	70	23	63	1.7	5.5	200	0	160	220
AUG									
13...	62	20	59	1.7	5.4	190	--	160	190
SEP									
10...	67	18	60	1.7	7.3	210	0	170	180

06674500 NORTH PLATTE RIVER AT WYOMING-NEBRASKA STATE LINE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	SOLIDS, DISSOLVED (TONS PER AC-FT) (70303)	SOLIDS, DISSOLVED (TONS PER DAY) (70302)	NITROGEN, NITRATE DISSOLVED (MG/L AS N) (00618)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)
OCT								
10...	18	.5	13	664	.90	1610	.70	.09
NOV								
07...	18	.5	23	618	.84	609	3.6	.02
DEC								
05...	21	.5	23	653	.89	534	2.1	.15
JAN								
05...	28	.4	28	689	.94	446	2.5	.03
29...	19	.5	24	640	.87	415	2.0	.04
MAR								
12...	17	.6	20	591	.80	412	1.7	.12
APR								
12...	19	.6	19	565	.77	444	1.4	.14
MAY								
07...	19	.6	19	515	.70	400	5.6	.08
JUN								
07...	17	.6	9.8	514	.70	1190	.02	.08
JUL								
16...	16	.5	6.4	505	.69	1880	.23	.15
AUG								
13...	14	.4	9.8	460	.63	1630	.25	.14
SEP								
10...	12	.5	16	464	.63	970	.66	.06

06677500 HORSE CREEK NEAR LYMAN, NE

LOCATION.--Lat 41°56'21", long 103°59'13", in SE1/4NE1/4 sec.25, T.23 N., R.58 W., Scotts Bluff County, Hydrologic Unit 10180012, on right bank 10 ft (3 m) upstream from county highway bridge, 1.8 mi (2.9 km) upstream from mouth, 2.2 mi (3.5 km) downstream from Owl Creek, and 3.2 mi (5.1 km) northeast of Lyman.

DRAINAGE AREA.--1,570 mi² (4,070 km²), approximately, of which about 40 mi² (100 km²) is noncontributing.

PERIOD OF RECORD.--February 1931 to current year.

REVISED RECORDS.--WSP 926: 1940(M). WDR NE-67: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,992.84 ft (1,217.018 m), National Geodetic Vertical Datum of 1929 (levels by private engineering firm). See WSP 2118 for history of changes prior to Apr. 17, 1967.

REMARKS.--Records good except those for winter period, which are fair. Natural flow of stream affected by ground-water withdrawals and diversions for irrigation and return flow from irrigated areas.

AVERAGE DISCHARGE.--48 years, 68.0 ft³/s (1.926 m³/s), 49,270 acre-ft/yr (60.7 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,110 ft³/s (145 m³/s) June 6, 1967, gage height, 10.82 ft (3.298 m), from rating curve extended above 1,900 ft³/s (53.8 m³/s) on basis of slope-area measurement of peak flow; minimum daily, 0.4 ft³/s (0.011 m³/s) Feb. 1, 2, 1949.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,210 ft³/s (119 m³/s) July 27, gage height, 9.52 ft (2.902 m) from slope-area measurement of peak flow; minimum daily, 11 ft³/s (0.31 m³/s) Jan. 8, 9, 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	140	48	40	17	18	36	26	17	130	334	162	173
2	109	48	27	17	18	35	24	17	155	324	153	185
3	95	48	27	16	18	33	24	18	174	304	137	184
4	90	48	27	15	18	32	25	17	195	294	106	143
5	85	46	26	15	18	34	23	16	198	260	90	137
6	79	46	32	14	18	37	23	15	198	231	82	137
7	75	46	30	13	18	39	22	15	203	202	84	142
8	80	46	30	11	18	37	21	19	228	214	78	145
9	74	45	30	11	30	33	21	22	268	208	75	162
10	68	44	28	12	50	32	21	25	309	148	81	184
11	66	44	25	13	56	32	26	69	260	98	87	197
12	65	45	28	13	80	30	27	58	251	89	84	233
13	64	45	30	14	100	29	26	37	255	86	82	260
14	67	44	30	14	94	28	24	30	254	66	83	278
15	66	44	33	14	88	28	23	27	231	57	96	296
16	65	45	32	15	80	27	22	23	231	56	87	321
17	64	40	32	15	76	26	21	26	252	72	82	321
18	62	40	33	16	70	26	21	48	247	67	84	304
19	62	40	34	16	60	28	20	146	274	69	96	304
20	62	40	33	17	58	28	19	213	259	69	140	301
21	62	40	30	18	49	28	19	205	270	65	104	299
22	67	41	32	19	46	29	19	205	277	68	96	289
23	66	40	36	17	45	28	19	156	245	78	96	299
24	63	39	35	15	48	28	19	106	243	74	98	306
25	62	40	35	13	40	27	19	101	223	76	143	326
26	58	40	36	11	40	26	19	80	174	88	169	336
27	56	40	32	13	39	26	18	61	180	1160	160	339
28	55	39	27	16	36	25	17	80	369	316	150	368
29	51	40	25	18	---	26	17	115	463	208	150	304
30	49	39	20	18	---	26	17	116	348	139	151	202
31	49	---	18	18	---	25	---	108	---	148	160	---
TOTAL	2176	1290	933	464	1329	924	640	2187	7360	5660	3446	7475
MEAN	70.2	43.0	30.1	15.0	47.5	29.8	21.3	70.5	245	183	111	249
MAX	140	48	40	19	100	39	27	213	463	1160	169	368
MIN	49	39	18	11	18	25	17	15	130	56	75	137
AC-FT	4320	2560	1850	920	2640	1830	1270	4340	14600	11240	6840	14830

CAL YR 1978 TOTAL 32652 MEAN 89.5 MAX 400 MIN 13 AC-FT 64770
WTR YR 1979 TOTAL 33892 MEAN 92.9 MAX 1160 MIN 11 AC-FT 67220

06678000 SHEEP CREEK NEAR MORRILL, NE

LOCATION.--Lat 41°57'50", long 103°56'20", in NW1/4SW1/4 sec.16, T.23 N., R.57 W., Scotts Bluff County, Hydrologic Unit 10180009, on right bank 40 ft (12 m) upstream from Burlington Northern Inc. bridge, 50 ft (15 m) downstream from bridge on U.S. Highway 26, 1 mi (2 km) west of Morrill, and 1.5 mi (2.4 km) upstream from mouth.

DRAINAGE AREA.--362 mi^2 (938 km^2), of which about 25 mi^2 (65 km^2) is noncontributing.

PERIOD OF RECORD.--October 1931 to current year.

REVISED RECORDS.--WDR NE-67: Drainage area. WSP 2118: 1936(M), 1946(M).

GAGE.--Water-stage recorder. Datum of gage is 3,995.04 ft (1,217.688 m) National Geodetic Vertical Datum of 1929. Prior to Apr. 14, 1940, nonrecording gage at site 20 ft (6 m) upstream at same datum.

REMARKS.--Records good. Natural flow of stream affected by ground-water withdrawals and diversions for irrigation and return flow from irrigated areas.

AVERAGE DISCHARGE.--48 years, 55.1 ft^3/s (1.560 m^3/s), 39,920 acre-ft/yr (49.2 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 516 ft^3/s (14.6 m^3/s) July 21, 1978, gage height, 6.62 ft (2.018 m); maximum gage height, 6.75 ft (2.057 m) Aug. 2, 1932, from floodmark, due to break in Interstate Canal (discharge not determined); minimum daily discharge, 0.1 ft^3/s (0.003 m^3/s) Dec. 16, 23, 1956, Jan. 18, Mar. 12, 1957, result of diversion for construction upstream.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 166 ft^3/s (4.70 m^3/s) Sept. 24, gage height, 2.67 ft (0.814 m); minimum daily, 2.4 ft^3/s (0.068 m^3/s) May 10-12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	126	103	99	90	78	78	72	66	3.4	3.4	3.8	4.6
2	124	103	98	90	78	78	72	65	3.4	3.4	3.6	4.3
3	124	102	97	90	80	78	72	62	3.6	3.4	3.4	4.1
4	124	102	98	90	80	76	73	61	3.6	3.4	3.6	3.8
5	119	101	97	90	81	75	73	62	3.8	3.4	3.8	3.8
6	120	101	94	90	81	75	73	62	3.8	3.6	4.1	3.6
7	120	101	94	90	81	75	73	65	3.4	3.6	4.1	3.4
8	118	101	92	90	80	75	73	27	3.4	3.6	4.6	4.3
9	116	101	92	88	82	76	73	2.6	3.4	5.6	4.6	4.3
10	115	101	92	86	85	76	74	2.4	3.0	4.3	4.6	4.3
11	115	101	90	88	86	78	74	2.4	3.2	4.1	4.6	4.6
12	115	101	91	86	86	80	71	2.4	3.2	4.3	4.6	5.1
13	115	102	93	86	83	80	70	2.6	3.2	4.6	4.6	4.8
14	114	102	94	85	82	83	70	2.9	7.4	4.1	4.6	4.8
15	114	102	93	85	80	85	71	2.9	3.8	4.1	4.6	4.8
16	114	101	93	85	79	85	74	2.9	3.8	4.1	4.3	4.8
17	113	101	93	82	81	84	76	2.9	5.9	4.1	4.1	4.3
18	111	100	93	82	82	84	76	2.9	6.8	3.8	4.1	3.8
19	111	98	93	82	82	83	75	3.2	4.1	3.6	4.3	3.8
20	111	98	96	81	82	80	74	3.2	3.6	4.1	4.3	3.6
21	111	98	95	81	82	81	71	3.2	3.4	4.1	3.8	3.6
22	118	98	96	78	82	80	70	3.2	3.4	4.1	3.6	3.6
23	112	97	95	78	82	79	70	3.4	3.4	6.6	3.6	3.6
24	110	97	96	78	82	79	66	3.4	2.7	4.6	5.6	83
25	109	98	96	78	81	78	68	3.2	2.7	4.6	52	125
26	107	98	95	78	81	79	68	3.2	3.7	4.6	25	125
27	107	97	92	78	81	79	69	3.2	13	4.6	4.3	124
28	105	98	92	78	79	78	69	3.2	4.1	4.6	5.3	125
29	103	98	92	78	---	79	69	3.4	30	4.6	5.1	125
30	102	98	92	78	---	72	68	3.2	4.1	4.1	4.8	121
31	103	---	92	78	---	73	---	3.2	---	3.8	4.6	---
TOTAL	3526	2999	2915	2597	2279	2441	2147	539.1	150.3	128.9	202.0	923.7
MEAN	114	100	94.0	83.8	81.4	78.7	71.6	17.4	5.01	4.16	6.52	30.8
MAX	126	103	99	90	86	85	76	66	30	6.6	52	125
MIN	102	97	90	78	78	72	66	2.4	2.7	3.4	3.4	3.4
AC-FT	6990	5950	5780	5150	4520	4840	4260	1070	298	256	401	1830

CAL YR 1978 TOTAL 20278.8 MEAN 55.6 MAX 347 MIN 1.7 AC-FT 40220
WTR YR 1979 TOTAL 20848.0 MEAN 57.1 MAX 126 MIN 2.4 AC-FT 41350

06679000 DRY SPOTTEDTAIL CREEK AT MITCHELL, NE

LOCATION.--Lat 41°56'45", long 103°49'35", at southeast corner of sec.20, T.23 N., R.56 W., Scotts Bluff County, Hydrologic Unit 10180009, on right bank 5 ft (2 m) upstream from bridge on county road, 0.5 mi (0.8 km) west of Mitchell, and 0.8 mi (1.3 km) upstream from mouth.

DRAINAGE AREA.--77.2 mi² (199.9 km²).

PERIOD OF RECORD.--October 1948 to September 1979 (discontinued). Future records at this site may be obtained from Nebraska Department of Water Resources.

REVISED RECORDS.--WDR NB-67: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,943.75 ft (1,202.055 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1958, at datum 1.00 ft (0.305 m) higher.

REMARKS.--Records good. Natural flow of stream affected by ground-water withdrawals and diversions for irrigation and return flow from irrigated areas.

AVERAGE DISCHARGE.--31 years, 34.1 ft³/s (0.966 m³/s), 24,710 acre-ft/yr (30.5 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,010 ft³/s (56.9 m³/s) June 24, 1951, gage height, 8.55 ft (2.606 m), present datum; minimum daily, 1.6 ft³/s (0.045 m³/s) June 28, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 412 ft³/s (11.7 m³/s) July 24, gage height, 3.88 ft (1.183 m); minimum daily, 4.0 ft³/s (0.11 m³/s) Jan. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	60	24	22	4.0	20	17	15	18	24	44	76	88
2	50	25	20	10	19	17	15	18	22	27	67	90
3	46	25	21	26	19	17	15	18	19	21	63	88
4	44	25	21	14	19	17	15	18	21	21	56	79
5	42	25	20	14	19	17	15	18	21	25	54	68
6	41	25	19	14	19	17	15	18	17	32	52	61
7	43	25	19	14	19	17	15	18	17	35	47	63
8	39	25	18	13	19	18	15	19	21	31	45	62
9	31	25	18	13	19	17	15	21	25	35	44	65
10	31	22	18	13	21	17	16	23	20	42	49	70
11	32	21	18	14	25	17	19	22	17	45	50	78
12	31	22	18	13	31	17	17	21	16	43	54	70
13	27	22	18	13	31	17	17	24	15	46	56	74
14	29	22	18	13	37	17	17	26	16	42	64	72
15	29	21	18	13	21	17	17	58	16	46	76	73
16	31	21	18	13	18	17	17	88	56	50	77	76
17	30	21	18	11	18	17	17	80	86	49	77	77
18	29	22	18	8.4	19	18	17	74	96	51	73	81
19	28	21	18	9.7	19	18	17	105	101	51	74	73
20	28	20	17	14	19	18	17	111	65	52	81	70
21	26	20	17	18	18	18	17	63	49	59	80	64
22	31	21	17	22	18	18	17	37	56	62	78	64
23	31	21	16	22	17	18	17	27	82	70	83	89
24	30	21	17	22	17	19	17	32	46	134	88	114
25	26	21	17	22	18	19	17	25	34	100	119	121
26	25	21	16	21	18	18	17	28	25	94	103	118
27	25	22	16	21	18	18	17	25	93	90	85	126
28	25	22	16	21	17	18	17	26	47	86	80	110
29	25	22	15	21	---	19	17	28	123	93	87	110
30	24	21	14	21	---	17	18	29	38	90	90	101
31	24	---	14	20	---	15	---	29	---	87	89	---
TOTAL	1013	671	550	488.1	572	541	494	1147	1284	1753	2217	2495
MEAN	32.7	22.4	17.7	15.7	20.4	17.5	16.5	37.0	42.8	56.5	71.5	83.2
MAX	60	25	22	26	37	19	19	111	123	134	119	126
MIN	24	20	14	4.0	17	15	15	18	15	21	44	61
AC-FT	2010	1330	1090	968	1130	1070	980	2280	2550	3480	4400	4950

CAL YR 1978 TOTAL 13791.0 MEAN 37.8 MAX 196 MIN 11 AC-FT 27350
WTR YR 1979 TOTAL 13225.1 MEAN 36.2 MAX 134 MIN 4.0 AC-FT 26230

06679500 NORTH PLATTE RIVER AT MITCHELL, NE

LOCATION.--Lat 41°55'38", long 103°48'48", in NE1/4NE1/4 sec.33, T.23 N., R.56 W., Scotts Bluff County, Hydrologic Unit 10180009, on right bank of main channel on downstream side of bridge on State Highway 29, 0.5 mi (0.8 km) south of Mitchell.

DRAINAGE AREA.--24,300 mi^2 (62,900 km^2), approximately, of which about 22,300 mi^2 (57,800 km^2) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1901 to September 1910, May to December 1911, February 1912 to July 1913 (gage heights only), May 1916 to October 1918 (irrigation seasons only), May 1920 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WDR NE-67, WDR NE-76-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,929.3 ft (1,197.65 m) National Geodetic Vertical Datum of 1929. See WSP 1918 for history of changes prior to May 27, 1960. May 27, 1960 to Aug. 24, 1971, at datum 1.00 ft (0.305 m) higher.

REMARKS.--Records good. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 27,500 ft^3/s (779 m^3/s) June 3, 1909, gage height, 6.45 ft (1.966 m), datum then in use, from graph based on gage readings, from rating curve extended above 17,000 ft^3/s (481 m^3/s); minimum daily observed, 25 ft^3/s (0.71 m^3/s) Sept. 25-29, 1908.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,080 ft^3/s (58.9 m^3/s) July 27, gage height, 4.80 ft (1.463 m); minimum daily, 202 ft^3/s (5.72 m^3/s) May 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	895	706	613	440	432	531	470	491	436	535	495	432
2	846	706	604	430	436	526	465	482	400	513	448	408
3	803	696	590	420	436	513	461	482	368	487	384	384
4	777	701	595	440	440	513	457	482	357	432	301	364
5	751	691	590	453	440	513	453	487	345	396	260	330
6	746	686	595	450	440	517	444	482	330	380	247	319
7	757	681	585	450	440	517	444	474	327	380	237	323
8	873	676	558	450	440	522	432	439	380	376	224	334
9	1100	671	517	453	444	513	432	282	495	357	230	360
10	1220	666	544	450	478	504	428	243	535	316	237	400
11	1240	656	571	450	581	504	461	263	504	291	253	461
12	1030	661	571	450	681	504	482	298	487	250	263	500
13	912	656	571	450	726	495	482	267	448	263	260	540
14	846	652	576	450	746	482	470	250	420	243	277	604
15	809	647	576	453	681	482	461	243	400	230	327	618
16	777	637	571	461	544	478	453	234	416	230	334	613
17	757	632	553	457	540	478	453	230	453	237	338	599
18	741	628	553	461	562	482	500	247	496	256	338	576
19	721	618	553	474	562	482	522	280	652	262	420	535
20	716	599	544	478	571	482	531	384	553	260	526	522
21	741	595	531	478	562	487	531	396	522	267	487	500
22	777	604	522	474	544	491	517	334	531	280	400	482
23	788	609	526	444	522	487	535	301	526	330	345	508
24	777	604	526	453	522	487	526	260	487	457	355	567
25	772	604	535	465	522	487	517	227	412	470	531	661
26	751	613	522	461	526	482	513	215	353	494	576	746
27	736	604	513	453	526	482	517	202	396	1260	522	890
28	731	599	513	440	526	474	517	319	502	841	504	979
29	721	599	474	444	---	482	513	470	766	767	522	945
30	711	613	460	453	---	482	500	513	517	585	465	819
31	706	---	450	436	---	474	---	478	---	517	432	---
TOTAL	25528	19310	17002	14021	14870	15353	14487	10755	13814	12962	11538	16319
MEAN	823	644	548	452	531	495	483	347	460	418	372	544
MAX	1240	706	613	478	746	531	535	513	766	1260	576	979
MIN	706	595	450	420	432	474	428	202	327	230	224	319
AC-FT	50630	38300	33720	27810	29490	30450	28730	21330	27400	25710	22890	32370

CAL YR 1978 TOTAL 203492 MEAN 558 MAX 2030 MIN 208 AC-FT 403600
WTR YR 1979 TOTAL 185959 MEAN 509 MAX 1260 MIN 202 AC-FT 368800

06679500 NORTH PLATTE RIVER AT MITCHELL, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964, 1976-1979.

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	TEMPERATURE (DEG C) (00010)	PERTHANE TOTAL (UG/L) (39034)	PCB, TOTAL (UG/L) (39516)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG) (39519)	ALDRIN, TOTAL (UG/L) (39330)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG) (39333)	CHLORDANE, TOTAL (UG/L) (39350)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG) (39351)	DDD, TOTAL (UG/L) (39360)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG) (39363)
MAY 07...	1800	11.0	.00	.0	0	.00	.1	.0	0	.00	.6
SEP 10...	1230	20.0	.00	.0	2	.00	.2	.0	1	.00	1.1

DATE	DDE, TOTAL (UG/L) (39365)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG) (39368)	DDT, TOTAL (UG/L) (39370)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG) (39373)	DIAZINON, TOTAL (UG/L) (39570)	DIELDRIN TOTAL (UG/L) (39380)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG) (39383)	ENDOSULFAN, TOTAL (UG/L) (39388)	ENDRIN, TOTAL (UG/L) (39390)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG) (39393)	ETHION, TOTAL (UG/L) (39398)
MAY 07...	.00	1.4	.00	.5	.00	.00	.4	.00	.00	.1	.00
SEP 10...	.00	5.6	.00	1.2	.00	.00	1.0	.00	.00	.2	.00

DATE	HEPTACHLOR, TOTAL (UG/L) (39410)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG) (39413)	HEPTACHLOR EPOXIDE TOTAL (UG/L) (39420)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG) (39423)	LINDANE TOTAL (UG/L) (39340)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG) (39343)	MALATHION, TOTAL (UG/L) (39530)	METHOXYCHLOR, TOTAL (UG/L) (39480)	METHYL PARATHION, TOTAL (UG/L) (39600)	METHYL TRITHION, TOTAL (UG/L) (39790)	PARATHION, TOTAL (UG/L) (39540)
MAY 07...	.00	.0	.00	.0	.00	.0	.00	--	.00	.00	.00
SEP 10...	.00	.0	.00	.0	.00	.0	.00	.00	.00	.00	.00

DATE	TOXAPHENE, TOTAL (UG/L) (39400)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG) (39403)	TOTAL TRITHION (UG/L) (39786)	2,4-D, TOTAL (UG/L) (39730)	2,4-D, TOTAL IN BOTTOM MATERIAL (UG/KG) (39731)	2,4,5-T TOTAL (UG/L) (39740)	2,4,5-T TOTAL IN BOTTOM MATERIAL (UG/KG) (39741)	MIREX, TOTAL (UG/L) (39755)	SILVEX, TOTAL (UG/L) (39760)	SILVEX, TOTAL IN BOTTOM MATERIAL (UG/KG) (39761)
MAY 07...	0	12	.00	.00	0	.00	0	.00	.00	.0
SEP 10...	0	0	.00	.00	0	.00	0	.00	.00	.0

06680000 TUB SPRINGS NEAR SCOTTSBLUFF, NE

LOCATION.--Lat 41°54'55", long 103°42'55", in SE1/4SE1/4 sec.33, T.23 N., R.55 W., Scotts Bluff County, Hydrologic Unit 10180009, 50 ft (15 m) upstream from bridge, 0.2 mi (0.3 km) downstream from headgates of Enterprise Canal, 1.5 mi (2.4 km) upstream from mouth, and 3.5 mi (5.6 km) northwest of Scottsbluff.

PERIOD OF RECORD.--October 1948 to September 1979 (discontinued). Future records at this site may be obtained from Nebraska Department of Water Resources.

REVISED RECORDS.--WSP 1310: 1949(M).

GAGE.--Water-stage recorder. Datum of gage is 3,926.54 ft (1,196.809 m) National Geodetic Vertical Datum of 1929. See WSP 1918 for history of changes prior to Sept. 9, 1952.

REMARKS.--Records good. Natural flow of stream affected by diversions for irrigation, spill from Enterprise Canal, and return flow from irrigated areas.

AVERAGE DISCHARGE.--31 years, 37.6 ft^3/s (1.065 m^3/s), 27,240 acre-ft/yr (33.6 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,610 ft^3/s (45.6 m^3/s) June 21, 1952, gage height not determined, on basis of slope-area measurement of peak flow caused by break in Interstate Canal; minimum daily, 0.70 ft^3/s (0.020 m^3/s) May 7, 1965.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 218 ft^3/s (6.17 m^3/s) July 26, gage height, 2.33 ft (0.710 m); minimum daily, 16 ft^3/s (0.45 m^3/s) May 9-13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	64	48	40	36	31	29	25	22	68	50	65	59
2	62	49	40	36	32	29	26	23	60	60	48	58
3	62	48	40	36	31	29	25	23	52	58	35	55
4	61	47	40	37	31	29	25	22	51	51	32	54
5	61	47	40	37	31	29	25	22	49	49	31	51
6	60	47	40	37	30	29	25	22	50	43	31	46
7	59	47	40	37	31	30	25	23	52	36	31	43
8	58	47	40	36	33	29	25	19	54	32	30	44
9	57	47	39	36	33	29	25	16	57	31	32	44
10	56	47	40	36	32	29	26	16	55	29	33	45
11	56	46	40	36	32	28	27	16	55	29	32	53
12	56	46	40	36	36	29	25	16	54	29	30	62
13	55	46	40	36	38	28	25	16	51	29	29	68
14	56	44	40	36	41	29	25	17	47	31	33	71
15	55	44	40	36	33	28	25	18	46	29	38	69
16	55	44	39	35	31	28	25	20	36	30	34	72
17	54	43	39	34	30	29	25	19	20	31	36	68
18	53	43	38	34	33	28	25	18	26	31	42	62
19	56	43	38	34	37	28	25	19	30	30	60	59
20	54	42	38	34	35	26	24	19	41	31	72	61
21	53	42	38	35	31	27	25	46	43	32	72	58
22	56	40	38	34	29	27	24	93	43	32	68	55
23	56	40	37	34	29	26	23	85	44	33	67	59
24	53	40	38	34	29	26	24	76	46	41	75	58
25	51	40	38	33	29	26	23	51	49	42	87	56
26	50	40	37	33	29	26	23	48	52	48	85	80
27	50	40	37	33	29	25	23	46	51	70	84	104
28	48	40	36	32	29	25	22	56	57	74	82	92
29	48	40	35	33	---	26	22	64	66	75	72	77
30	48	40	36	32	---	25	22	68	53	71	62	73
31	48	---	36	31	---	25	---	67	---	76	61	---
TOTAL	1711	1317	1197	1079	895	856	734	1086	1458	1333	1589	1856
MEAN	55.2	43.9	38.6	34.8	32.0	27.6	24.5	35.0	48.6	43.0	51.3	61.9
MAX	64	49	40	37	41	30	27	93	68	76	87	104
MIN	48	40	35	31	29	25	22	16	20	29	29	43
AC-FT	3390	2610	2370	2140	1780	1700	1460	2150	2890	2640	3150	3680

CAL YR 1978 TOTAL 15705 MEAN 43.0 MAX 105 MIN 14 AC-FT 31150
WTR YR 1979 TOTAL 15111 MEAN 41.4 MAX 104 MIN 16 AC-FT 29970

06681000 WINTERS CREEK NEAR SCOTTSBLUFF, NE

LOCATION.--Lat 41°51'08", long 103°37'35", in NW1/4SE1/4 sec.30, T.22 N., R.54 W., Scotts Bluff County, Hydrologic Unit 10180009, on right bank 700 ft (213 m) downstream from bridge on U.S. Highway 26, 1 mi (2 km) upstream from mouth, and 1.5 mi (2.4 km) east of Scottsbluff.

PERIOD OF RECORD.--October 1931 to September 1979 (discontinued). Prior to October 1971, published as Winter Creek near Scottsbluff. Future records at this site may be obtained from Nebraska Department of Water Resources.

GAGE.--Water-stage recorder. Datum of gage is 3,860.0 ft (1,176.77 m) National Geodetic Vertical Datum of 1929. Prior to Nov. 19, 1938, nonrecording gage at site 700 ft (210 m) upstream at different datum. Nov. 19, 1938, to Sept. 30, 1958, water-stage recorder at present site at datum 1.00 ft (0.305 m) higher.

REMARKS.--Records good. Natural flow of stream affected by ground-water withdrawals and diversions for irrigation and return flow from irrigated areas.

AVERAGE DISCHARGE.--48 years, 52.9 ft³/s (1.498 m³/s), 38,330 acre-ft/yr (47.3 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,160 ft³/s (32.9 m³/s) June 21, 1977, gage height, 8.07 ft (2.460 m), from high-water mark; maximum gage height, 9.34 ft (2.847 m), present datum, Jan. 7, 1949, backwater from snowdrifts; minimum daily discharge, 0.9 ft³/s (0.025 m³/s) July 5, 1961.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 968 ft³/s (27.4 m³/s) July 26, gage height, 7.35 ft (2.240 m); minimum daily, 9.0 ft³/s (0.25 m³/s) July 12, 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	81	57	51	43	36	47	40	42	54	50	78	73
2	79	58	51	43	36	46	43	42	47	48	70	76
3	76	57	50	44	37	45	46	42	41	42	52	75
4	75	57	52	44	37	45	45	42	39	38	28	76
5	74	56	50	43	37	46	43	43	38	43	25	77
6	70	56	50	43	43	46	42	43	36	45	23	74
7	71	56	49	42	49	46	43	24	51	49	16	80
8	74	55	49	42	49	46	42	15	64	43	15	87
9	70	56	49	42	51	46	42	18	64	38	16	87
10	69	56	49	42	50	45	41	17	63	12	15	85
11	64	55	50	43	50	45	41	16	57	9.4	20	84
12	66	56	50	43	51	46	41	16	44	9.0	26	82
13	66	54	50	41	51	46	40	16	40	9.4	25	81
14	67	54	50	41	52	46	40	16	36	9.0	27	77
15	66	54	48	40	49	46	40	13	32	11	39	76
16	67	54	48	39	48	47	40	11	33	9.8	48	70
17	66	54	48	38	47	47	41	14	29	12	50	74
18	66	54	48	38	47	47	40	14	31	13	95	80
19	65	53	48	38	51	47	41	23	64	11	96	81
20	65	52	47	38	52	46	42	23	54	14	98	106
21	64	52	46	38	49	46	41	23	56	13	93	97
22	65	52	46	38	47	46	41	26	58	15	90	83
23	63	50	46	38	47	45	41	32	66	31	91	84
24	63	50	45	38	47	45	41	33	62	42	93	80
25	63	51	45	38	48	44	42	32	48	38	104	73
26	61	50	45	37	48	44	42	33	35	81	92	73
27	61	50	44	37	48	42	41	28	44	189	81	79
28	60	50	44	37	48	42	41	40	68	113	67	72
29	60	50	44	36	---	41	43	59	47	111	60	58
30	58	50	44	36	---	41	43	69	39	99	55	56
31	57	---	43	36	---	41	---	58	---	85	62	---
TOTAL	2072	1609	1479	1236	1305	1398	1249	923	1440	1332.6	1750	2356
MEAN	66.8	53.6	47.7	39.9	46.6	45.1	41.6	29.8	48.0	43.0	56.5	78.5
MAX	81	58	52	44	52	47	46	69	68	189	104	106
MIN	57	50	43	36	36	41	40	11	29	9.0	15	56
AC-FT	4110	3190	2930	2450	2590	2770	2480	1830	2860	2640	3470	4670

CAL YR 1978 TOTAL 18297.0 MEAN 50.1 MAX 193 MIN 10 AC-FT 36290
WTR YR 1979 TOTAL 18149.6 MEAN 49.7 MAX 189 MIN 9.0 AC-FT 36000

06681500 GERING DRAIN NEAR GERING, NE

LOCATION.--Lat 41°49'20", long 103°37'02", in SE1/4NE1/4 sec.6, T.21 N., R.54 W., Scotts Bluff County, Hydrologic Unit 10180009, near left bank on downstream side of bridge piling on county road, 0.2 mi (0.3 km) downstream from bridge on State Highway 92, 1 mi (2 km) upstream from mouth, and 2 mi (3 km) east of Gering.

PERIOD OF RECORD.--February 1931 to September 1945, October 1948 to current year.

REVISED RECORDS.--WSP 896: 1935(M).

GAGE.--Water-stage recorder. Datum of gage is 3,853.62 ft (1,174.583 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). See WSP 1918 for history of changes prior to June 27, 1958. June 27, 1958, to Oct. 27, 1970, at datum 3.0 ft (0.91 m) higher. Oct. 28, 1970 to Dec. 8, 1975, at datum 1.0 ft (0.30 m) higher.

REMARKS.--Records good. Base flow is mainly return water from land irrigated by Fort Laramie Canal.

AVERAGE DISCHARGE.--45 years, 46.4 ft³/s (1.314 m³/s), 33,620 acre-ft/yr (41.5 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,560 ft³/s (271 m³/s) June 8, 1958, gage height, 14.0 ft (4.27 m), present datum, from floodmarks, from rating curve extended above 2,200 ft³/s (62.3 m³/s) on basis of slope-area measurements at gage heights 12.67 ft (3.862 m) and 14.0 ft (4.27 m) present datum; minimum daily, 5 ft³/s (0.14 m³/s) Aug. 13, 16, 19, 1940.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,270 ft³/s (92.6 m³/s) July 27, gage height, 9.49 ft (2.893 m) from slope-area measurement; minimum daily, 23 ft³/s (0.65 m³/s) Apr. 13-28.

REVISIONS.--The maximum discharges for the water years 1977 and 1978 have been revised to 678 ft³/s (19.2 m³/s) June 9, 1977, gage height, 3.64 ft (1.109 m), and 978 ft³/s (27.7 m³/s) Aug. 29, 1978, gage height, 4.65 ft (1.417 m), superseding figures published in reports for 1977 and 1978.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	50	37	37	32	28	28	28	26	144	147	263	167
2	48	37	36	34	28	28	27	26	137	142	261	165
3	46	37	36	30	28	27	27	26	139	160	179	165
4	45	37	76	29	29	26	27	26	111	149	121	155
5	44	37	34	29	29	26	26	25	121	149	107	145
6	43	37	33	32	28	27	26	25	111	126	98	145
7	42	37	32	31	31	28	26	24	104	117	90	142
8	40	37	34	32	31	28	26	28	115	108	90	153
9	39	37	33	31	39	27	25	31	117	100	95	161
10	38	37	32	31	80	26	25	30	105	88	97	160
11	40	37	32	32	88	26	28	28	115	83	101	174
12	62	36	32	32	73	26	24	28	118	80	102	204
13	56	35	32	32	48	26	23	28	97	81	101	201
14	55	34	32	32	40	26	23	27	104	75	100	225
15	55	34	32	30	32	26	23	28	118	76	114	215
16	52	34	32	29	32	26	23	26	97	115	108	213
17	51	34	32	28	30	26	23	25	121	130	93	212
18	50	33	32	28	30	29	23	25	135	108	123	208
19	50	33	33	28	30	31	23	26	188	100	122	197
20	63	33	33	28	30	30	23	87	161	97	191	197
21	64	33	33	28	29	30	23	98	190	97	172	197
22	56	33	33	27	28	32	23	80	185	105	153	188
23	39	33	33	28	28	30	23	85	174	115	141	188
24	38	32	33	28	28	30	23	88	163	114	149	194
25	38	33	33	28	28	31	26	107	160	111	186	192
26	36	35	33	28	28	28	26	160	150	203	160	194
27	36	35	33	28	28	28	26	139	159	807	155	176
28	35	35	33	28	28	28	26	152	174	188	185	161
29	34	36	32	28	---	28	26	153	163	117	177	131
30	34	36	32	28	---	28	26	153	137	141	158	117
31	34	---	32	29	---	29	---	144	---	245	163	---
TOTAL	1413	1054	1065	910	1009	865	747	1954	4133	[illegible]	4355	5342
MEAN	45.6	35.1	34.4	29.6	36.0	27.9	24.9	63.0	138	144	140	178
MAX	64	37	76	34	88	32	28	160	190	807	263	225
MIN	34	32	32	27	28	26	23	24	97	75	90	117
AC-FT	2800	2090	2110	1820	2000	1720	1480	3880	8200	8870	8640	10600

CAL YR 1978 TOTAL 24064 MEAN 65.9 MAX 313 MIN 28 AC-FT 47730
WTR YR 1979 TOTAL 27329 MEAN 74.9 MAX 807 MIN 23 AC-FT 54210

06682000 NORTH PLATTE RIVER NEAR MINATARE, NE

LOCATION.--Main channel gage: Lat 41°47'26", long 103°31'11", in SE1/4SE1/4 sec.13, T.21 N., R.54 W., Scotts Bluff County, Hydrologic Unit 10180009, on left bank 220 ft (67 m) upstream from bridge on State Highway 326 and 1.8 mi (2.9 km) southwest of Minatare. Nine Mile channel gage: Lat 41°47'32", long 103°31'08", in SE1/4SE1/4 sec.13, T.21 N., R.54 W., Scotts Bluff County, Hydrologic Unit 10180009, on left bank 50 ft (15 m) upstream from bridge on State Highway 326 and 750 ft (229 m) north of main channel bridge.

DRAINAGE AREA.--24,700 mi² (64,000 km²), approximately, of which about 22,700 mi² (58,900 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--May to August 1916, May 1917 to September 1918, May to October 1919, April to September 1922, June 1923 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1710, WDR NE-76-1: Drainage area.

GAGE.--Main channel: Water-stage recorder. Datum of gage is 3,810.7 ft (1,161.50 m) National Geodetic Vertical Datum of 1929. Nov. 2, 1966 to July 13, 1976 water-stage recorder at datum 1.00 ft (0.305 m) higher. See WDR NE-72 for history of changes prior to Nov. 2, 1966.
Nine Mile channel: Water-stage recorder. Datum of gage is 3,812.3 ft (1,161.99 m) National Geodetic Vertical Datum of 1929. See WDR NE-72 for history of changes prior to Aug. 25, 1971.

REMARKS.--Records good. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas. River flows in two channels for which separate records are computed; figures given herein represent combined discharge.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,500 ft³/s (552 m³/s) July 2, 1917, from graph based on mean daily discharge and discharge measurement published by State engineer of Nebraska; minimum daily, 11 ft³/s (0.31 m³/s) Aug. 16-18, 1940.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 18, 1921, may have been greater than flood of July 2, 1917.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,030 ft³/s (114 m³/s) July 27; minimum daily, 271 ft³/s (7.67 m³/s) July 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1320	1000	915	687	715	779	725	694	775	900	1090	817
2	1220	1000	901	625	685	772	712	682	721	874	990	829
3	1150	987	885	620	685	755	702	682	663	820	812	843
4	1130	978	878	610	680	762	692	689	616	731	634	795
5	1110	970	870	610	692	740	685	687	595	682	519	734
6	1110	963	861	590	717	734	679	683	567	605	471	687
7	1120	962	856	560	735	738	662	668	580	585	406	695
8	1180	959	838	560	735	740	655	678	606	529	349	725
9	1330	956	815	650	763	732	652	572	788	509	338	736
10	1510	947	796	750	783	713	654	498	886	423	348	765
11	1580	945	809	790	850	708	702	658	832	332	345	833
12	1480	948	821	830	927	703	718	666	776	303	350	995
13	1300	940	814	790	986	699	709	654	698	293	363	1020
14	1230	928	816	780	989	706	719	633	650	281	360	1180
15	1200	926	824	748	976	704	708	618	620	271	416	1250
16	1150	927	820	735	868	704	693	398	620	318	465	1250
17	1120	922	809	730	811	702	677	377	680	420	450	1230
18	1090	920	810	726	795	704	662	393	697	388	545	1190
19	1090	907	810	732	811	715	648	432	1120	378	669	1140
20	1100	909	798	739	828	710	659	528	1010	373	861	1090
21	1090	908	780	739	811	719	694	651	900	373	871	1060
22	1150	934	775	737	806	733	719	617	904	386	779	1010
23	1160	923	777	712	783	725	723	598	894	523	692	1000
24	1140	920	768	685	776	708	726	565	848	574	686	1020
25	1130	927	783	716	776	711	724	517	790	698	955	1040
26	1090	949	768	706	776	711	701	496	660	715	1120	1110
27	1050	930	759	693	770	710	699	502	624	2510	1050	1320
28	1050	920	760	690	774	708	699	523	895	1740	958	1540
29	1040	915	729	680	---	711	694	648	1090	1840	922	1460
30	1020	907	717	718	---	730	696	778	938	1210	852	1320
31	1010	---	704	712	---	723	---	796	---	1100	818	---
TOTAL	36450	28227	25066	21650	22279	22389	20788	17581	22959	21292	20460	30688
MEAN	1176	941	809	698	796	722	693	567	765	687	660	1023
MAX	1580	1000	915	830	989	779	726	796	1120	2510	1120	1540
MIN	1010	907	704	560	680	699	648	377	567	271	338	687
AC-FT	72300	55990	49720	42940	44190	44410	41230	34870	45540	42230	40580	60860

CAL YR 1978 TOTAL 313748 MEAN 860 MAX 2680 MIN 338 AC-FT 622300
WTR YR 1979 TOTAL 289825 MEAN 794 MAX 2510 MIN 271 AC-FT 574900

06682500 NINEMILE DRAIN NEAR MCGREW, NE

LOCATION.--Lat 41°46'15", long 103°25'18", in SE1/4SE1/4 sec.23, T.21 N., R.53 W., Scotts Bluff County, Hydrologic Unit 10180009, on right bank 15 ft (5 m) upstream from highway bridge, 0.5 mi (0.8 km) upstream from mouth, and 1.5 mi (2.4 km) north of McGrew.

PERIOD OF RECORD.--January 1932 to September 1979 (discontinued). Future records at this site may be obtained from Nebraska Department of Water Resources.

REVISED RECORDS.--WSP 926: 1936.

GAGE.--Water-stage recorder. Altitude of gage is 3,780 ft (1,152 m), from topographic map. Prior to Apr. 14, 1939, nonrecording gage at present site and datum.

REMARKS.--Records good. Flow affected by ground-water withdrawals and diversions for irrigation and return flow from irrigated areas.

AVERAGE DISCHARGE.--47 years, 119 ft³/s (3.370 m³/s), 86,220 acre-ft/yr (0.106 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 933 ft³/s (26.4 m³/s) June 21, 1977, gage height, 4.97 ft (1.515 m); minimum daily, 24 ft³/s (0.68 m³/s) July 5, 1961, May 13, 1962.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 539 ft³/s (15.3 m³/s) July 27, gage height, 3.73 ft (1.137 m); minimum daily, 65 ft³/s (1.84 m³/s) Apr. 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	185	113	112	82	82	79	74	85	127	234	316	231
2	181	113	110	82	82	78	74	89	118	234	314	229
3	180	114	108	89	80	77	74	89	111	209	299	231
4	179	115	107	89	80	77	72	78	109	181	265	224
5	178	114	107	89	80	77	70	72	108	178	175	221
6	174	114	104	88	80	76	69	72	115	160	166	220
7	175	114	104	88	80	77	66	72	131	161	150	217
8	176	115	98	88	81	77	66	91	132	154	144	221
9	173	115	98	89	81	77	66	97	138	163	142	229
10	172	116	99	90	81	77	67	126	130	132	144	237
11	172	116	96	90	83	77	70	189	118	108	148	249
12	169	117	98	88	86	77	67	191	118	99	148	295
13	164	116	97	88	88	77	68	185	118	96	157	309
14	166	117	97	86	93	77	66	182	119	94	166	304
15	163	117	97	86	85	79	66	168	109	97	195	295
16	146	117	97	88	84	78	66	139	105	110	208	288
17	148	117	96	88	84	78	65	138	105	149	215	282
18	148	117	96	88	82	80	66	117	111	152	270	278
19	148	114	96	88	80	81	68	99	173	146	305	261
20	142	114	95	90	80	80	68	103	126	144	317	229
21	139	113	94	90	77	80	68	103	132	149	307	211
22	142	114	93	88	76	81	68	103	112	158	302	211
23	131	113	92	88	75	79	68	106	81	176	249	205
24	131	114	92	86	75	77	68	108	74	191	215	192
25	128	115	91	85	74	76	73	102	72	196	337	174
26	122	114	90	85	77	77	82	107	76	202	382	172
27	122	112	89	84	79	76	81	115	87	320	369	185
28	118	111	86	84	78	76	80	116	112	270	428	209
29	116	111	84	84	---	74	80	166	99	292	365	182
30	113	111	83	83	---	75	81	170	228	297	246	185
31	113	---	82	82	---	76	---	137	---	314	234	---
TOTAL	4712	3433	2990	2693	2263	2403	2117	3715	3494	5566	7678	6976
MEAN	152	114	96.5	86.9	80.8	77.5	70.6	120	116	180	248	233
MAX	185	117	112	90	93	81	82	191	228	320	428	309
MIN	113	111	82	82	74	74	65	72	72	94	142	172
AC-FT	9350	6810	5930	5340	4490	4770	4200	7370	6930	11040	15230	13840

CAL YR 1978 TOTAL 46080 MEAN 126 MAX 418 MIN 50 AC-FT 91400
WTR YR 1979 TOTAL 48040 MEAN 132 MAX 428 MIN 65 AC-FT 95290

06682505 NORTH PLATTE RIVER AT MC GREW, NEBR.

LOCATION.--Lat 41°45'42", long 103°25'02", in SW1/4 sec.25, T.21 N., R.53 W., Scotts Bluff County, Hydrologic Unit 10180009, at bridge on county road 1.2 miles north of State Highway 92, 0.3 miles downstream from Ninemile Creek and 0.9 miles north of McGrew.

PERIOD OF RECORD.--Chemical analyses: June 1973 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (JTU) (00070)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT										
16...	0930	1320	950	7.2	9.0	40	10.4	4.0	5500	4600
NOV										
20...	1450	982	1000	7.8	.5	25	13.3	4.4	8200	K30
DEC										
18...	0930	914	1020	7.7	2.0	25	12.1	2.2	2000	1500
JAN										
15...	0915	680	1080	7.7	.5	10	11.3	1.9	9700	170
FEB										
12...	0930	1010	860	7.6	5.0	100	10.0	8.5	1900	410
MAR										
19...	0930	758	980	8.0	5.0	20	11.1	4.5	350	440
APR										
16...	0930	797	990	8.0	12.5	20	9.2	1.2	320	110
MAY										
14...	0930	578	1020	7.9	13.5	15	9.6	2.4	460	170
JUN										
20...	0900	1010	878	7.9	15.5	270	7.3	2.6	4200	6900
JUL										
17...	0915	358	878	7.7	18.5	240	7.7	2.4	K6000	K10000
AUG										
14...	0900	525	970	7.8	16.5	65	9.8	3.8	930	K3400
SEP										
17...	0900	1240	891	7.9	8.5	70	8.0	3.3	K1300	11000

K Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)
OCT										
16...	37	658	.89	2350	2.5	.05	--	--	--	.18
NOV										
20...	24	669	.91	1770	2.9	.26	.55	.81	3.7	.12
DEC										
18...	24	682	.93	1680	3.0	.20	.62	.82	3.8	.07
JAN										
15...	25	706	.96	1300	3.1	.17	.77	.94	4.0	.10
FEB										
12...	26	590	.80	1610	2.8	.13	1.9	2.0	4.8	.43
MAR										
19...	22	660	.90	1350	3.1	.10	.52	.62	3.7	.09
APR										
16...	--	--	--	--	2.6	.04	.67	.71	3.3	.07
MAY										
14...	26	660	.90	1030	2.5	.10	.65	.75	3.3	.11
JUN										
20...	21	597	.81	1630	1.4	.08	2.7	2.8	4.2	.79
JUL										
17...	21	590	.80	570	2.3	.07	7.3	7.4	9.7	.60
AUG										
14...	27	681	.93	965	2.1	.02	.97	.99	3.1	.22
SEP										
17...	22	598	.81	2000	1.6	.02	.58	.60	2.2	.18

06682505 NORTH PLATTE RIVER AT MC GREW, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)
NOV										
20...	1450	290	--	83	21	110	2.8	9.8	260	210
FEB										
12...	0930	240	17	67	17	81	2.3	12	220	200
MAY										
14...	0930	300	50	87	20	100	2.5	11	250	220
AUG										
14...	0900	290	33	81	22	110	2.8	11	260	250

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P) (00666)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)
NOV										
20...	.5	40	--	2.9	.06	--	--	170	--	--
FEB										
12...	.4	33	572	--	.14	--	--	130	--	--
MAY										
14...	.5	36	662	2.4	.04	9	100	190	0	20
AUG										
14...	.5	36	694	--	.20	--	--	260	--	--

DATE	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY SUS-PENDED RECOV-ERABLE (UG/L AS HG) (71895)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
NOV										
20...	--	0	--	8	--	--	--	--	--	--
FEB										
12...	--	50	--	50	--	--	--	--	--	--
MAY										
14...	0	10	0	10	.0	.0	.1	4	0	20
AUG										
14...	--	250	--	20	--	--	--	--	--	--

06683000 BAYARD SUGAR FACTORY DRAIN NEAR BAYARD, NE

LOCATION.--Lat 41°44'10", long 103°19'53", in SE1/4NE1/4 sec.5, T.20 N., R.52 W., Morrill County, Hydrologic Unit 10180009, on right bank 600 ft (183 m) upstream from mouth and 1.2 mi (1.9 km) south of Bayard.

PERIOD OF RECORD.--October 1931 to September 1979 (discontinued). Future records at this site may be obtained from Nebraska Department of Water Resources.

REVISED RECORDS.--WSP 1310: 1937(M), 1941.

GAGE.--Water-stage recorder and concrete flume. Datum of gage is 3,746.28 ft (1,141.866 m) National Geodetic Vertical Datum of 1929. Prior to Jan. 7, 1939, nonrecording gage at same site and datum.

REMARKS.--Records good. Flow affected by ground-water withdrawals and diversions for irrigation and return flow from irrigated areas.

AVERAGE DISCHARGE.--48 years, 28.4 ft^3/s (0.804 m^3/s), 20,580 acre-ft/yr (25.4 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 391 ft^3/s (11.1 m^3/s) July 3, 1956, gage height, 4.32 ft (1.317 m); no flow June 1, 2, July 4-8, 1934, May 16, 17, 1936, Aug. 8, 9, 1960, Apr. 29, 30, May 4, 5, 1962, May 23-31, 1973.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 110 ft^3/s (3.12 m^3/s) July 27, gage height, 2.07 ft (0.631 m), maximum gage height, 2.24 ft (0.683 m) Jan. 1, backwater from ice; minimum daily discharge, 1.2 ft^3/s (0.034 m^3/s) May 2, 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	29	29	15	21	25	22	1.6	29	52	56	69
2	23	28	27	25	20	25	21	1.2	20	48	56	64
3	39	28	29	24	21	23	21	1.2	16	42	47	65
4	48	27	24	24	21	23	20	2.4	11	34	41	65
5	48	26	29	23	20	24	19	5.1	5.0	35	36	62
6	49	27	29	22	21	25	19	3.6	5.2	34	33	60
7	50	26	27	22	21	25	18	3.4	9.4	34	32	56
8	46	26	26	22	20	25	17	5.2	6.6	31	32	56
9	37	29	25	21	21	23	17	6.2	13	31	31	55
10	34	28	28	22	23	23	19	3.7	15	29	32	57
11	38	27	27	22	25	23	23	2.4	15	28	31	57
12	39	27	27	21	30	23	21	5.6	12	24	31	78
13	41	27	28	22	33	22	21	5.3	7.6	24	33	76
14	40	26	27	21	40	22	21	4.2	6.7	24	33	70
15	40	26	26	21	25	22	20	3.2	8.8	23	41	65
16	36	26	26	21	20	22	20	1.8	11	25	49	63
17	33	26	25	20	24	22	20	3.5	12	33	47	59
18	33	26	24	18	24	22	21	2.6	13	28	64	57
19	32	25	25	15	27	24	21	2.6	27	27	62	52
20	31	26	24	17	29	22	22	3.3	28	27	60	44
21	31	26	22	18	25	22	22	7.3	28	23	59	32
22	33	27	22	22	23	24	24	6.4	25	33	61	31
23	32	27	22	20	23	23	24	7.2	16	46	57	30
24	31	28	21	22	23	22	24	6.5	15	48	58	26
25	31	28	21	21	24	21	26	7.5	17	47	77	22
26	30	29	20	20	25	20	26	4.8	18	47	90	22
27	29	28	19	20	25	20	26	4.7	16	90	86	27
28	29	28	19	20	25	20	25	5.7	20	69	83	28
29	28	29	18	20	---	21	11	15	22	62	79	22
30	28	29	19	20	---	22	1.8	27	33	55	72	30
31	28	---	20	20	---	23	---	32	---	60	74	---
TOTAL	1093	815	755	641	679	703	612.8	192.2	481.3	1213	1643	1500
MEAN	35.3	27.2	24.4	20.7	24.3	22.7	20.4	6.20	16.0	39.1	53.0	50.0
MAX	50	29	29	25	40	25	26	32	33	90	90	78
MIN	23	25	18	15	20	20	1.8	1.2	5.0	23	31	22
AC-FT	2170	1620	1500	1270	1350	1390	1220	381	955	2410	3260	2980

CAL YR 1978 TOTAL 10574.62 MEAN 29.0 MAX 300 MIN .07 AC-FT 20970
WTR YR 1979 TOTAL 10328.30 MEAN 28.3 MAX 90 MIN 1.2 AC-FT 20490

06684000 RED WILLOW CREEK NEAR BAYARD, NE

LOCATION.--Lat 41°42'50", long 103°15'10", in NE1/4NE1/4 sec.13, T.20 N., R.52 W., Morrill County, Hydrologic Unit 10180009, on left bank 75 ft (23 m) downstream from timber bridge, 0.2 mi (0.3 km) downstream from Wild Horse drain, 0.8 mi (1.3 km) upstream from mouth, and 4.5 mi (7.2 km) southeast of Bayard.

PERIOD OF RECORD.--October 1931 to September 1979 (discontinued). Monthly discharge only for some periods, published in WSP 1310. Future records at this site may be obtained from Nebraska Department of Water Resources.

REVISED RECORDS.--WSP 1310: 1937(M).

GAGE.--Water-stage recorder. Datum of gage is 3,717.29 ft (1,133.030 m) National Geodetic Vertical Datum of 1929. Prior to Nov. 18, 1938, nonrecording gage and Nov. 18, 1938, to Apr. 15, 1946, water-stage recorder at site 65 ft (19.8 m) upstream at datum 2.00 ft (0.610 m) higher, and Apr. 16, 1946, to May 1, 1977, at datum 1.00 ft (0.305 m) higher.

REMARKS.--Records good. Natural flow of stream affected by diversions and ground-water withdrawals for irrigation, return flow from irrigated areas, and occasional waste into creek from Tri-State canal.

AVERAGE DISCHARGE.--48 years, 88.5 ft^3/s (2.506 m^3/s), 64,120 acre-ft/yr (79.1 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,320 ft^3/s (65.7 m^3/s) July 3, 1956, gage height, 8.33 ft (2.539 m), present datum; maximum gage height, 8.8 ft (2.68 m) May 10, 1942, from floodmark, present datum; minimum daily discharge, 15 ft^3/s (0.42 m^3/s) Apr. 23, 1935, Apr. 26, 1962.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 819 ft^3/s (23.2 m^3/s) July 27, gage height, 5.37 ft (1.637 m); minimum daily, 29 ft^3/s (0.82 m^3/s) May 4-7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	139	90	83	66	62	71	68	31	162	175	242	215
2	134	94	84	60	64	70	67	31	139	176	248	186
3	139	96	83	40	64	67	67	30	80	158	228	169
4	135	94	84	50	64	68	67	29	61	137	192	160
5	132	94	82	60	69	67	66	29	53	135	149	154
6	127	94	82	70	69	68	64	29	52	104	123	142
7	124	94	83	70	68	68	62	29	55	103	96	133
8	123	94	83	70	66	69	62	32	62	104	98	136
9	124	92	83	70	66	67	60	48	177	112	93	137
10	121	92	82	70	66	66	61	53	197	107	96	145
11	120	89	83	70	66	66	67	121	198	89	99	145
12	118	89	83	70	69	66	63	183	204	87	102	204
13	118	86	82	69	69	64	60	199	203	85	115	230
14	117	86	82	69	75	63	60	202	202	81	116	244
15	116	86	81	70	73	63	60	97	203	87	124	244
16	110	86	81	69	65	63	60	69	200	96	124	248
17	103	85	81	68	64	63	58	64	212	103	117	239
18	101	86	78	69	65	64	57	63	234	96	199	244
19	101	85	78	69	71	65	58	63	262	92	215	237
20	100	85	78	68	83	65	58	55	254	85	212	212
21	99	85	79	69	77	64	58	55	264	80	214	207
22	99	85	77	68	72	67	57	71	268	81	198	183
23	99	83	77	67	69	66	57	61	247	87	179	170
24	97	83	77	68	68	66	57	57	236	111	174	167
25	94	85	77	67	68	65	58	56	223	108	203	145
26	93	85	77	66	69	65	56	53	186	134	255	134
27	92	83	77	66	69	65	56	55	108	317	208	133
28	90	83	74	65	69	64	55	73	87	249	239	170
29	89	82	73	65	---	64	57	166	82	256	216	142
30	85	82	74	64	---	68	50	171	136	245	207	137
31	85	---	73	60	---	69	---	159	---	234	226	---
TOTAL	3424	2633	2471	2042	1919	2046	1806	2434	5047	4114	5307	5412
MEAN	110	87.8	79.7	65.9	68.5	66.0	60.2	78.5	168	133	171	180
MAX	139	96	84	70	83	71	68	202	268	317	255	248
MIN	85	82	73	40	62	63	50	29	52	80	93	133
AC-FT	6790	5220	4900	4050	3810	4060	3580	4830	10010	8160	10530	10730

CAL YR 1978 TOTAL 41304 MEAN 113 MAX 505 MIN 38 AC-FT 81930
WTR YR 1979 TOTAL 38655 MEAN 106 MAX 317 MIN 29 AC-FT 76670

06684500 NORTH PLATTE RIVER AT BRIDGEPORT, NE

LOCATION.--Main channel gage: Lat 41°40'54", long 103°05'52", in NW1/4NW1/4 sec.28, T.20 N., R.50 W., Morrill County, Hydrologic Unit 10180009, on left bank 0.3 mi (0.5 km) upstream from bridge on U.S. Highway 26, 0.8 mi (1.3 km) north of Bridgeport. Browns Creek channel gage: Lat 41°40'55", long 103°05'53", in NW1/4NW1/4 sec.28, T. 20 N., R. 50 W., Morrill County, on left bank 0.2 mi (0.3 km) upstream from culvert on U. S. Highway 26 and 0.8 mi (1.3 km) north of Bridgeport.

DRAINAGE AREA.--25,300 mi^2 (65,500 km^2), approximately, of which about 23,300 mi^2 (60,300 km^2) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1896 to October 1900 (no winter records most years), May 1902 to November 1906, June to August 1915, May 1916 to current year. Monthly discharge only for some years, published in WSP 1310. Published as "near Camp Clark" 1896-1900.

REVISED RECORDS.--WSP 1390: 1897, 1915. WDR NE-67, WDR NE-76-1: Drainage area.

GAGE.--Main channel: Water-stage recorder. Datum of gage is 3,656.14 ft (1,114.391 m) National Geodetic Vertical Datum of 1929. See WSP 1918 for history of changes prior to Oct. 7, 1927.
Browns Creek channel: Water-stage recorder. Datum of gage is 3,663.51 ft (1,116.638 m) National Geodetic Vertical Datum of 1929. See WSP 1918 for history of changes prior to June 1, 1943.

REMARKS.--Records good. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas. River flows in two independently rated channels for which separate records are computed; figures herein represent combined discharge.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 24,900 ft^3/s (705 m^3/s) June 26, 1899, gage height, 5.39 ft (1.643 m), site and datum then in use, from graph based on gage readings; minimum daily, 55 ft^3/s (1.56 m^3/s) May 28, 1934, Aug. 15, 1940, but may have been less during periods of no record for Browns Creek channel.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,370 ft^3/s (67.1 m^3/s) July 27; minimum daily, 310 ft^3/s (8.78 m^3/s) July 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1540	1200	1060	776	792	960	834	736	945	1250	1650	1310
2	1400	1190	1070	726	799	978	832	713	861	1210	1610	1240
3	1390	1200	1060	725	802	968	841	713	786	1110	1420	1160
4	1380	1180	1070	756	833	966	822	720	666	959	1190	1060
5	1370	1190	1010	791	872	975	822	727	614	914	861	990
6	1380	1200	911	808	922	976	822	727	590	810	692	955
7	1370	1200	891	838	942	976	812	734	570	765	582	941
8	1330	1190	880	849	977	959	811	760	571	748	538	950
9	1340	1120	889	850	957	886	840	791	790	714	519	960
10	1500	1020	962	857	962	878	841	710	892	626	512	958
11	1560	977	989	880	954	860	886	683	903	504	496	1060
12	1510	1020	971	902	1010	860	920	673	935	411	502	1430
13	1340	1040	961	924	1210	848	929	675	910	363	550	1480
14	1340	1060	988	947	1190	857	929	642	859	351	557	1490
15	1350	1100	979	961	1260	867	929	621	839	327	571	1490
16	1310	1120	979	984	1070	858	900	623	835	310	640	1490
17	1320	1120	979	984	994	876	919	594	870	392	655	1480
18	1360	1120	979	966	994	842	929	569	912	440	866	1470
19	1340	1120	979	942	1020	860	919	546	1140	425	1180	1450
20	1300	1120	988	922	1120	860	920	563	1450	413	1300	1380
21	1290	1120	988	899	1140	869	938	650	1050	397	1400	1340
22	1310	1100	961	890	1110	888	938	710	1040	434	1360	1260
23	1350	1080	971	860	958	878	866	716	971	546	1260	1250
24	1340	1070	1010	865	932	896	893	708	953	664	1170	1280
25	1330	1040	1010	875	914	895	893	609	896	763	1300	1280
26	1220	1080	1020	872	932	886	866	554	872	830	1710	1320
27	1120	1070	1010	857	932	886	848	520	744	1760	1680	1430
28	1120	1060	978	834	941	877	820	504	832	2030	1680	1580
29	1160	1060	969	812	---	878	784	682	897	1750	1680	1550
30	1130	1050	969	811	---	888	768	899	1210	1690	1370	1450
31	1190	---	779	812	---	862	---	982	---	1680	1300	---
TOTAL	41290	33217	30260	26775	27539	27813	26071	21054	26363	25586	32801	38484
MEAN	1332	1107	976	864	984	897	869	679	879	825	1058	1283
MAX	1560	1200	1070	984	1260	978	938	982	1450	2030	1710	1580
MIN	1120	977	779	725	792	842	768	504	570	310	496	941
AC-FT	81900	65890	60020	53110	54620	55170	51710	41760	52290	50750	65060	76330

CAL YR 1978 TOTAL 383262 MEAN 1050 MAX 3880 MIN 450 AC-FT 760200
WTR YR 1979 TOTAL 357253 MEAN 979 MAX 2030 MIN 310 AC-FT 708600

PLATTE RIVER BASIN

06684500 NORTH PLATTE RIVER AT BRIDGEPORT, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water year 1971 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (JTU) (00070)	OXYGEN, DIS-SOLVED (MG/L) (00300)
OCT							
06...	0940	1290	932	7.8	9.5	50	11.0
18...	1015	1330	985	7.6	11.0	35	10.8
DEC							
06...	1315	888	962	7.9	1.0	25	12.4
21...	1315	979	998	8.1	3.0	20	12.4
MAR							
29...	1510	852	1010	8.1	10.0	20	9.5
APR							
30...	1330	924	938	8.2	15.5	35	9.8
MAY							
30...	0945	739	902	7.8	13.0	70	9.4
JUL							
03...	0830	1020	897	7.9	21.5	150	7.7
AUG							
22...	0830	1260	880	7.7	18.0	100	9.5
SEP							
26...	0945	1240	887	8.1	17.5	55	8.3

06685000 PUMPKIN CREEK NEAR BRIDGEPORT, NE

LOCATION.--Lat 41°37'38", long 103°02'10", in SW1/4 sec.12, T.19 N., R.50 W., Morrill County, Hydrologic Unit 10180013, on left bank 250 ft (76 m) downstream from bridge on U.S. Highway 385 and State Highway 92, 0.5 mi (0.8 km) upstream from mouth, and 4 mi (6 km) southeast of Bridgeport.

DRAINAGE AREA.--1,020 mi² (2,640 km²), approximately.

PERIOD OF RECORD.--February 1931 to current year.

REVISED RECORDS.--WSP 1390: 1932, 1934(M), 1935, 1936(M), 1938-39. WDR NE-67: Drainage area.

GAGE.--Water-stage recorder. Sheet piling control since December 1964. Datum of gage is 3,635.99 ft (1,108.250 m) National Geodetic Vertical Datum of 1929. Prior to June 25, 1934, nonrecording gage on downstream side of bridge 240 ft (73 m) upstream and June 25, 1934, to May 18, 1936, water-stage recorder at upstream side of bridge 260 ft (79 m) upstream, both at datum 0.29 ft (0.088 m) higher.

REMARKS.--Records good. Natural flow of stream affected by ground-water withdrawals and diversions for irrigation and return flow from irrigated areas.

AVERAGE DISCHARGE.--48 years, 29.4 ft³/s (0.833 m³/s), 21,300 acre-ft/yr (26.3 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,880 ft³/s (223 m³/s) June 9, 1965, gage height, 9.98 ft (3.042 m), from floodmark, from rating curve extended above 3,500 ft³/s (99.1 m³/s) on basis of rating extension for main channel and determination of flow over road; no flow July 22, 24-26, Aug. 5-8, 1975; July 9, 11, 22, 23, 28, 29, 1976; July 2-6, Aug. 2, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 81 ft³/s (2.29 m³/s) May 15, gage height, 2.44 ft (0.744 m); maximum gage height, 4.31 ft (1.314 m) Feb. 3, backwater from ice; minimum daily discharge, 0.07 ft³/s (0.002 m³/s) Aug. 12, 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.4	9.9	14	12	14	18	21	18	41	36	33	14
2	4.6	10	12	12	15	18	20	18	40	35	26	9.0
3	4.8	10	15	12	16	18	21	19	42	32	17	2.8
4	4.6	10	17	12	17	18	20	18	38	29	13	6.5
5	4.8	10	19	12	18	18	19	20	20	19	8.2	12
6	5.0	10	17	12	20	20	18	19	9.9	22	1.4	12
7	5.1	10	16	13	20	20	18	19	31	21	1.3	12
8	5.0	11	15	13	18	20	18	20	28	14	.85	12
9	4.8	11	15	13	16	20	18	23	31	12	.46	14
10	4.8	11	15	13	15	19	17	27	35	5.3	.24	16
11	4.9	11	15	14	18	18	20	26	34	2.8	.13	18
12	4.8	11	15	15	18	18	20	23	32	.79	.07	26
13	5.8	12	15	14	19	18	20	23	32	.38	.08	30
14	7.6	15	17	14	19	17	20	23	32	.44	.07	35
15	8.0	14	16	13	18	17	19	30	34	.17	.08	37
16	8.1	14	16	12	15	17	18	58	36	.36	.08	40
17	8.3	14	16	12	19	17	18	52	35	.81	.10	42
18	6.4	14	16	14	19	17	17	52	37	.37	.97	42
19	5.5	14	16	16	20	18	18	52	47	.23	14	40
20	6.2	10	16	18	19	17	18	37	50	.24	13	37
21	6.1	18	16	19	18	18	18	35	50	.53	13	26
22	6.8	14	15	20	18	20	19	26	50	.72	16	28
23	7.2	14	14	20	17	18	18	26	50	.93	8.3	35
24	7.2	13	14	18	18	18	19	21	50	14	14	35
25	7.2	14	15	16	18	20	20	17	51	8.7	16	34
26	7.3	14	14	14	17	19	20	24	48	.93	12	31
27	7.4	14	14	13	18	19	20	40	44	13	23	30
28	7.7	14	14	12	18	19	19	44	37	22	28	28
29	9.5	14	13	12	---	20	18	46	35	25	21	16
30	10	14	13	12	---	21	18	42	37	23	13	7.8
31	10	---	13	13	---	21	---	41	---	33	14	---
TOTAL	199.9	374.9	468	435	495	576	567	939	1136.9	373.70	308.33	728.1
MEAN	6.45	12.5	15.1	14.0	17.7	18.6	18.9	30.3	37.9	12.1	9.95	24.3
MAX	10	18	19	20	20	21	21	58	51	36	33	42
MIN	4.4	9.9	12	12	14	17	17	17	9.9	.17	.07	2.8
AC-FT	397	744	928	863	982	1140	1120	1860	2260	741	612	1440

CAL YR 1978 TOTAL 4894.63 MEAN 13.4 MAX 55 MIN .06 AC-FT 9710
WTR YR 1979 TOTAL 6601.83 MEAN 18.1 MAX 58 MIN .07 AC-FT 13090

06686000 NORTH PLATTE RIVER AT LISCO, NE
(National stream-quality accounting network station)

LOCATION.--Lat 41°29'18", long 102°37'25", in NW1/4SE1/4 sec.33, T.18 N., R.46 W., Garden County, Hydrologic Unit 10180009, near right bank on downstream side of pier of highway bridge, 0.5 mi (0.8 km) south of Lisco.

DRAINAGE AREA.--26,700 mi² (69,200 km²), approximately, of which about 24,700 mi² (64,000 km²) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May to September 1916, June to October 1917, September 1931 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WDR NE-67, WDR NE-76-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,474.5 ft (1,059.03 m) National Geodetic Vertical Datum of 1929. Prior to Sept. 8, 1931, nonrecording gage at present site at different datum and Sept. 8, 1931, to May 3, 1932, at present site at datum 1.0 ft (0.30 m) higher. May 4, 1932 to May 28, 1974, water-stage recorder at present site at datum 1.0 ft (0.30 m) higher.

REMARKS.--Records good except those for winter period, which are fair. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 20,100 ft³/s (569 m³/s) June 27, 29, 1917, from graph based on daily gage readings, from rating curve extended above 15,000 ft³/s (425 m³/s); minimum daily, 8 ft³/s (0.23 m³/s) Aug. 4, 1934.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,660 ft³/s (75.3 m³/s) July 28, gage height, 2.96 ft (0.902 m); maximum gage height, 4.02 ft (1.225 m) Dec. 3, backwater from ice; minimum daily discharge, 264 ft³/s (7.48 m³/s) July 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1570	1340	1210	700	860	1160	1090	918	1060	1140	1700	1280
2	1560	1340	1200	620	900	1170	1060	943	1030	1190	1680	1260
3	1480	1350	1000	620	940	1170	1050	930	918	1130	1540	1230
4	1460	1350	1200	660	1000	1130	1050	956	822	1100	1330	1220
5	1430	1340	1350	700	1060	1140	1010	956	744	1010	1130	1160
6	1450	1340	1400	740	1120	1190	930	943	680	943	930	1060
7	1450	1370	1300	780	1160	1220	870	906	680	834	733	969
8	1480	1370	1200	820	1180	1220	788	943	630	744	591	943
9	1570	1370	1200	900	1200	1160	788	1020	690	680	537	943
10	1690	1310	1300	900	1240	1160	834	1030	846	650	486	995
11	1910	1280	1400	920	1250	1190	956	918	943	564	478	1090
12	1950	1290	1450	960	1300	1190	1050	918	995	446	470	1360
13	1830	1370	1450	1000	1350	1190	956	930	969	367	478	1580
14	1710	1350	1400	1050	1400	1140	956	943	918	300	519	1680
15	1640	1370	1350	1100	1400	1120	956	956	870	288	546	1800
16	1610	1400	1350	1150	1350	1120	943	870	894	264	630	1860
17	1570	1370	1300	1200	1400	1130	969	858	906	282	700	1860
18	1540	1270	1250	1150	1450	1250	969	788	930	306	870	1820
19	1530	1240	1250	1150	1600	1220	969	777	1090	388	1070	1720
20	1490	1250	1300	1200	1600	1250	982	766	1360	374	1250	1720
21	1530	1310	1350	1150	1550	1260	982	766	1330	360	1400	1640
22	1620	1250	1350	1120	1400	1340	982	858	1260	360	1450	1500
23	1620	1250	1350	1120	1140	1250	982	882	1230	388	1380	1490
24	1620	1270	1400	1080	1160	1190	982	822	1190	486	1220	1430
25	1640	1290	1400	1040	1140	1070	995	766	1160	650	1160	1360
26	1640	1340	1350	1000	1220	1010	956	711	982	755	1470	1360
27	1510	1280	1300	960	1140	906	918	650	882	1140	1720	1380
28	1320	1240	1200	900	1160	943	918	610	810	2340	1720	1520
29	1310	1220	1100	900	---	956	906	660	870	2240	1700	1800
30	1350	1180	900	860	---	1050	906	906	969	1920	1540	1740
31	1350	---	800	820	---	1060	---	1030	---	1860	1360	---
TOTAL	48430	39300	39360	29270	34670	35555	28703	26930	28658	25499	33768	42770
MEAN	1562	1310	1270	944	1238	1147	957	869	955	823	1089	1426
MAX	1950	1400	1450	1200	1600	1340	1090	1030	1360	2340	1720	1860
MIN	1310	1180	800	620	860	906	788	610	630	264	470	943
AC-FT	96060	77950	78070	58060	68770	70520	56930	53420	56840	50580	66980	84830

CAL YR 1978 TOTAL 435310 MEAN 1193 MAX 4430 MIN 355 AC-FT 863400
WTR YR 1979 TOTAL 412893 MEAN 1131 MAX 2340 MIN 264 AC-FT 819000

06686000 NORTH PLATTE RIVER AT LISCO, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water year 1970 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1970 to current year.
WATER TEMPERATURES: October 1970 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 1,100 micromhos Jan. 6, 1971; minimum daily, 275 micromhos Mar. 1, 1978.
WATER TEMPERATURES: Maximum, 31.0°C July 19, 1972; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 1,090 micromhos Dec. 31; minimum daily, 510 micromhos Mar. 1.
WATER TEMPERATURES: Maximum, 27.0°C July 21, 22; minimum, 0.0°C on many days during winter period.

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	TURBIDITY (JTU) (00070)	TURBIDITY (NTU) (00076)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L) (00310)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)
OCT										
17...	1245	1460	920	7.9	13.0	55	34	10.9	3.2	240
NOV										
22...	0945	1260	920	7.8	1.0	30	12	13.2	1.9	240
DEC										
19...	1215	1290	932	7.9	.5	15	5.0	11.6	3.1	380
JAN										
16...	1300	1100	960	8.0	.5	20	11	11.3	2.1	56
FEB										
13...	1300	1350	832	8.0	1.5	65	70	11.6	3.6	93
MAR										
20...	1100	1230	910	7.8	6.5	25	23	11.5	3.8	30
APR										
17...	1250	975	900	8.1	19.0	20	19	8.9	1.6	K9
MAY										
23...	0930	890	908	8.0	18.0	70	90	9.6	7.1	230
JUN										
18...	1430	928	880	8.0	18.0	60	70	6.4	1.6	577
JUL										
16...	1545	268	878	7.9	20.0	25	28	7.1	3.2	120
AUG										
15...	1000	559	892	7.9	16.0	35	34	10.9	3.0	K170
SEP										
18...	1030	1820	842	7.8	17.5	70	60	8.6	6.1	190

K Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	ALKALINITY (MG/L AS CACO3) (00410)
OCT									
17...	230	280	37	78	20	92	2.4	9.4	200
NOV									
22...	280	280	35	81	20	90	2.3	11	250
DEC									
19...	170	260	16	73	18	94	2.6	11	240
JAN									
16...	72	300	38	88	19	84	2.1	11	260
FEB									
13...	300	240	32	69	17	80	2.2	11	210
MAR									
20...	9500	300	62	88	20	95	2.4	10	240
APR									
17...	120	250	11	69	19	96	2.6	9.9	240
MAY									
23...	164	280	66	76	21	87	2.3	10	210
JUN									
18...	480	290	76	80	21	89	2.3	9.6	210
JUL									
16...	160	240	42	64	20	94	2.6	11	200
AUG									
15...	720	280	56	76	21	92	2.4	10	220
SEP									
18...	3300	280	61	78	21	89	2.3	9.8	220

PLATTE RIVER BASIN

06686000 NORTH PLATTE RIVER AT LISCO, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS- SOLVED (TONS PER DAY) (70302)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)
OCT									
17...	210	22	.5	40	649	616	.88	2560	2.5
NOV									
22...	210	20	.4	41	656	628	.89	2230	2.8
DEC									
19...	190	22	.4	37	639	590	.87	2230	2.8
JAN									
16...	210	25	.4	40	650	634	.88	1930	2.8
FEB									
13...	190	22	.3	36	562	564	.76	2050	2.6
MAR									
20...	200	23	.5	37	619	618	.84	2060	2.7
APR									
17...	200	21	.5	40	606	600	.82	1600	2.4
MAY									
23...	210	21	.5	29	608	581	.83	1460	1.6
JUN									
18...	240	19	.4	28	632	613	.86	1580	1.5
JUL									
16...	220	20	.5	36	596	586	.81	431	1.2
AUG									
15...	240	22	.5	38	569	640	.77	859	1.8
SEP									
18...	210	21	.5	36	588	655	.80	2890	1.9

DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, NH4 + ORG. SUSP. TOTAL (MG/L AS N) (00624)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00666)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
OCT									
17...	.06	1.6	1.7	.81	.89	4.2	.17	.03	6.4
NOV									
22...	.11	.62	.73	.04	.69	3.5	.11	.05	--
DEC									
19...	.07	.58	.65	.11	.54	3.5	.07	.07	3.2
JAN									
16...	.19	.53	.72	.00	.72	3.5	.10	.08	5.2
FEB									
13...	.06	1.2	1.3	.64	.66	3.9	.34	.14	--
MAR									
20...	.01	--	--	.00	.62	--	.08	.04	10
APR									
17...	.01	.43	.44	.06	.38	2.8	.07	.03	6.9
MAY									
23...	.02	1.1	1.1	.74	.36	2.7	.20	.04	--
JUN									
18...	.02	1.2	1.2	.64	.56	2.7	.25	.04	11
JUL									
16...	.00	.97	.97	.63	.34	2.2	.09	.01	5.0
AUG									
15...	.03	.69	.72	.00	.72	2.5	.01	.01	--
SEP									
18...	.04	1.1	1.1	.17	.93	3.0	.27	.05	9.5

06686000 NORTH PLATTE RIVER AT LISCO, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, DISSOLVED (MG/L AS N) (00602)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA) (01007)	BARIUM, SUSPENDED RECOVERABLE (UG/L AS BA) (01006)	BARIUM, DISSOLVED (UG/L AS BA) (01005)	BORON, DISSOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD) (01027)	CADMIUM SUSPENDED RECOVERABLE (UG/L AS CD) (01026)
NOV 22...	0945	--	--	7	5	100	0	100	--	0	0
FEB 13...	1300	2.7	--	7	6	200	100	90	130	--	0
MAY 23...	0930	--	--	5	5	200	100	100	--	1	0
AUG 15...	1000	1.7	2.4	8	5	100	0	100	190	1	0

DATE	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) (01034)	CHROMIUM, SUSPENDED RECOV. (UG/L AS CR) (01031)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COBALT, TOTAL RECOVERABLE (UG/L AS CO) (01037)	COBALT, SUSPENDED RECOVERABLE (UG/L AS CO) (01036)	COBALT, DISSOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOVERABLE (UG/L AS CU) (01042)	COPPER, SUSPENDED RECOVERABLE (UG/L AS CU) (01041)	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOVERABLE (UG/L AS FE) (01045)
NOV 22...	<1	0	0	0	0	0	<3	8	5	3	1800
FEB 13...	--	0	0	0	0	0	<3	10	4	6	3900
MAY 23...	1	20	10	10	0	0	2	13	12	1	3300
AUG 15...	<1	10	0	10	0	0	<3	4	0	4	1500

DATE	IRON, SUSPENDED RECOVERABLE (UG/L AS FE) (01044)	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOVERABLE (UG/L AS PB) (01051)	LEAD, SUSPENDED RECOVERABLE (UG/L AS PB) (01050)	LEAD, DISSOLVED (UG/L AS PB) (01049)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) (01055)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN) (01054)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	MERCURY SUSPENDED RECOVERABLE (UG/L AS HG) (71895)	MERCURY DISSOLVED (UG/L AS HG) (71890)
NOV 22...	1800	10	5	5	0	80	80	5	.0	.0	.0
FEB 13...	3700	180	--	30	--	200	170	30	.0	.0	.0
MAY 23...	3300	10	13	13	0	200	190	10	.1	.1	.0
AUG 15...	1500	10	3	3	0	90	90	4	.0	.0	.1

DATE	SELENIUM, TOTAL (UG/L AS SE) (01147)	SELENIUM, SUSPENDED TOTAL (UG/L AS SE) (01146)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOVERABLE (UG/L AS AG) (01077)	SILVER, SUSPENDED RECOVERABLE (UG/L AS AG) (01076)	SILVER, DISSOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	ZINC, SUSPENDED RECOVERABLE (UG/L AS ZN) (01091)	ZINC, DISSOLVED (UG/L AS ZN) (01090)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C) (00689)
NOV 22...	4	1	3	0	0	0	30	30	<3	--	1.2
FEB 13...	4	1	3	0	0	0	30	10	20	7.3	2.0
MAY 23...	4	0	4	0	0	0	30	0	40	4.4	4.1
AUG 15...	4	1	3	0	0	0	10	3	7	4.4	--

06686000 NORTH PLATTE RIVER AT LISCO, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	PCB, TOTAL (UG/L) (39516)	PCB, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39519)	ALDRIN, TOTAL (UG/L) (39330)	ALDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39333)	CHLOR-DANE, TOTAL (UG/L) (39350)	CHLOR-DANE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39351)	DDD, TOTAL (UG/L) (39360)	DDD, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39363)	DDE, TOTAL (UG/L) (39365)	DDE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39368)
NOV 22...	0945	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
FEB 13...	1300	ND	--	ND	--	ND	--	ND	--	ND	--

DATE	DDT, TOTAL (UG/L) (39370)	DDT, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39373)	DI-AZINON, TOTAL (UG/L) (39570)	DI-AZINON, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39571)	DI-ELDRIN TOTAL (UG/L) (39380)	DI-ELDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39383)	ENDRIN, TOTAL (UG/L) (39390)	ENDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39393)	ETHION, TOTAL (UG/L) (39398)	ETHION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39399)
NOV 22...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
FEB 13...	ND	--	ND	--	ND	--	ND	--	ND	--

DATE	HEPTA-CHLOR, TOTAL (UG/L) (39410)	HEPTA-CHLOR, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39413)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L) (39420)	HEPTA-CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG) (39423)	LINDANE TOTAL (UG/L) (39340)	LINDANE TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39343)	MALA-THION, TOTAL (UG/L) (39530)	MALA-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39531)	METH-OXY-CHLOR, TOTAL (UG/L) (39480)	METH-OXY-CHLOR, TOT. IN BOTTOM MATL. (UG/KG) (39481)
NOV 22...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
FEB 13...	ND	--	ND	--	ND	--	ND	--	ND	--

DATE	METHYL PARA-THION, TOTAL (UG/L) (39600)	METHYL PARA-THION, TOT. IN BOTTOM MATL. (UG/KG) (39601)	METHYL TRI-THION, TOTAL (UG/L) (39790)	METHYL TRI-THION, TOT. IN BOTTOM MATL. (UG/KG) (39791)	PARA-THION, TOTAL (UG/L) (39540)	PARA-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39541)	TOX-APHENE, TOTAL (UG/L) (39400)	TOXA-PHENE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39403)	TOTAL TRI-THION (UG/L) (39786)	TRI-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39787)
NOV 22...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
FEB 13...	ND	--	ND	--	ND	--	ND	--	ND	--

06686000 NORTH PLATTE RIVER AT LISCO, NE--Continued

PHYTOPLANKTON ANALYSES, JULY 1978 TO SEPTEMBER 1979

DATE	JUL 18,78	AUG 15,78	NOV 22,78	MAR 20,79	MAY 23,79
TIME	1015	1210	0945	1100	0930
TOTAL CELLS/ML	24000	20000	3900	1600	11000
DIVERSITY: DIVISION	1.4	1.3	1.0	0.4	1.5
.CLASS	1.4	1.3	1.0	0.4	1.5
..ORDER	1.9	1.8	1.4	0.7	1.8
...FAMILY	2.5	3.2	2.9	3.1	2.8
....GENUS	2.9	3.4	3.2	3.2	2.9

ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)										
.CHLOROPHYCEAE										
..CHLOROCOCCALES										
...CHARACIACEAE										
....SCHROEDERIA	--	-	410	2	--	-	--	-	*	0
...CHLOROCOCCACEAE										
....CHLOROCOCCUM	--	-	--	-	--	-	--	-	--	-
...COELASTRACEAE										
....COELASTRUM	--	-	2100	10	--	-	--	-	--	-
...MICRACTINIACEAE										
....GOLENKINIA	560	2	--	-	--	-	--	-	--	-
....MICRACTINIUM	--	-	1100	6	--	-	--	-	1800#	17
...OOCYSTACEAE										
....ANKISTRODESMUS	--	-	100	1	--	-	24	1	220	2
....CHODATELLA	1800	8	--	-	--	-	--	-	--	-
....DICTYOSPHAERIUM	700	3	410	2	--	-	--	-	--	-
....KIRCHNERIELLA	--	-	100	1	--	-	--	-	--	-
....OOCYSTIS	420	2	620	3	--	-	--	-	350	3
....SELENASTRUM	--	-	--	-	--	-	--	-	--	-
....TREUBARIA	--	-	--	-	--	-	--	-	*	0
...SCENEDESMACEAE										
....ACTINASTRUM	560	2	--	-	--	-	--	-	--	-
....CRUCIGENIA	560	2	410	2	--	-	--	-	--	-
....SCENEDESMUS	7300#	30	3900#	20	--	-	94	6	2300#	22
....TETRASTRUM	--	-	--	-	--	-	--	-	170	2
..VOLVOCALES										
...CHLAMYDOMONADACEAE										
....CHLAMYDOMONAS	1500	6	--	-	--	-	--	-	--	-
..ZYGNEMATALES										
...DESMIDIACEAE										
....CLOSTERIUM	--	-	210	1	--	-	--	-	--	-
CHRYSOPHYTA										
.BACILLARIOPHYCEAE										
..CENTRALES										
...COSCINODISCACEAE										
....CYCLOTELLA	5200#	22	4200#	21	--	-	83	5	820	8
....MELOSIRA	--	-	--	-	--	-	--	-	--	-
....SKELETONEMA	--	-	--	-	--	-	--	-	--	-
..PENNALES										
...ACHNANTHACEAE										
....ACHNANTHES	--	-	--	-	35	1	--	-	--	-
....COCCONEIS	--	-	100	1	70	2	35	2	--	-
....RHOICOSPHENIA	--	-	--	-	110	3	35	2	--	-
...CYMBELLACEAE										
....AMPHORA	--	-	--	-	--	-	12	1	--	-
....CYMBELLA	--	-	--	-	70	2	130	8	--	-
....RHOPALODIA	--	-	--	-	70	2	--	-	--	-
...DIATOMACEAE										
....DIATOMA	--	-	--	-	320	8	240	15	130	1
...FRAGILARIACEAE										
....FRAGILARIA	--	-	930	5	--	-	180	11	220	2
....SYNEDRA	--	-	410	2	320	8	24	1	--	-
...GOMPHONEMATACEAE										
....GOMPHONEMA	--	-	210	1	320	8	96	6	--	-
...NAVICULACEAE										
....NAVICULA	560	2	1900	9	250	6	450#	28	300	3
....PINNULARIA	--	-	--	-	110	3	--	-	--	-
...NITZSCHIACEAE										
....NITZSCHIA	980	4	1400	7	530	13	180	11	2400#	23
...SURIRELLACEAE										
....SURIRELLA	--	-	--	-	35	1	47	3	*	0
.CHRYSOPHYCEAE										
..CHRYSOMONADALES										
...OCHROMONADACEAE										
....OCHROMONAS	--	-	--	-	--	-	--	-	--	-
CRYPTOPHYTA (CRYPTOMONADS)										
.CRYPTOPHYCEAE										
..CRYPTOMONADALES										
...CRYPTOCHRYSIDACEAE										
....CHROOMONAS	--	-	--	-	--	-	--	-	--	-
...CRYPTOMONADACEAE										
....CRYPTOMONAS	140	1	--	-	--	-	--	-	*	0
CYANOPHYTA (BLUE-GREEN ALGAE)										
.CYANOPHYCEAE										
..CHROOCOCCALES										
...CHROOCOCCACEAE										
....AGMENELLUM	--	-	--	-	--	-	--	-	--	-
....ANACYSTIS	3600#	15	1400	7	--	-	--	-	--	-
....COCCOCHLORIS	--	-	--	-	1300#	32	--	-	--	-
..HORMOGONALES										
...OSCILLATORIACEAE										
....LYNGBYA	--	-	--	-	420	11	--	-	--	-
....OSCILLATORIA	--	-	--	-	--	-	--	-	1700#	16
....SPIRULINA	--	-	--	-	35	1	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

06686000 NORTH PLATTE RIVER AT LISCO, NE--Continued

PHYTOPLANKTON ANALYSES, JULY 1978 TO SEPTEMBER 1979

DATE	JUN 18,79	JUL 23,79	AUG 15,79	SEP 18,79
TIME	1430	1530	1000	1030
TOTAL CELLS/ML	7600	31000	25000	12000
DIVERSITY: DIVISION	1.2	1.4	0.7	1.3
.CLASS	1.2	1.4	0.7	1.5
..ORDER	1.5	2.1	0.8	2.1
...FAMILY	2.1	2.2	0.8	2.3
....GENUS	2.2	2.3	0.9	3.0

ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)								
.CHLOROPHYCEAE								
..CHLOROCOCCALES								
...CHARACIACEAE								
....SCHROEDERIA	--	-	170	1	*	0	--	-
...CHLOROCOCCACEAE								
....CHLOROCOCCUM	--	-	--	-	--	-	580	5
...COELASTRACEAE								
....COELASTRUM	--	-	--	-	--	-	--	-
...MICRACTINIACEAE								
....GOLENKINIA	60	1	--	-	--	-	--	-
....MICRACTINIUM	240	3	--	-	--	-	--	-
...OOCYSTACEAE								
....ANKISTRODESMUS	40	1	520	2	--	-	--	-
....CHODATELLA	--	-	--	-	--	-	--	-
....DICTYOSPHAERIUM	--	-	--	-	--	-	--	-
....KIRCHNERIELLA	--	-	--	-	--	-	--	-
....OOCYSTIS	81	1	--	-	--	-	--	-
....SELENASTRUM	--	-	170	1	--	-	--	-
....TREUBARIA	--	-	--	-	*	0	--	-
...SCENEDESMACEAE								
....ACTINASTRUM	--	-	--	-	200	1	--	-
....CRUCIGENIA	--	-	--	-	--	-	190	2
....SCENEDESMUS	4500#	59	6900#	22	1100	4	390	3
....TETRASTRUM	81	1	--	-	--	-	--	-
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
....CHLAMYDOMONAS	81	1	860	3	*	0	970	8
..ZYGNEMATALES								
...DESMIDIACEAE								
....CLOSTERIUM	--	-	--	-	--	-	--	-
CHRYSOPHYTA								
.BACILLARIOPHYCEAE								
..CENTRALES								
...COSCINODISCACEAE								
....CYCLOTELLA	380	5	10000#	34	480	2	630	5
....MELOSIRA	--	-	170	1	*	0	1500	12
....SKELETONEMA	--	-	--	-	--	-	3900#	32
..PENNALES								
...ACHNANTHACEAE								
....ACHNANTHES	--	-	--	-	--	-	--	-
....COCCONEIS	--	-	--	-	--	-	--	-
....RHOICOSPHENIA	*	0	--	-	--	-	--	-
...CYMBELLACEAE								
....AMPHORA	--	-	--	-	--	-	--	-
....CYMBELLA	--	-	--	-	--	-	--	-
....RHOPALODIA	--	-	--	-	--	-	--	-
...DIATOMACEAE								
....DIATOMA	--	-	--	-	--	-	--	-
...FRAGILARIACEAE								
....FRAGILARIA	730	10	--	-	--	-	820	7
....SYNEDRA	--	-	--	-	--	-	97	1
...GOMPHONEMATACEAE								
....GOMPHONEMA	--	-	--	-	--	-	--	-
...NAVICULACEAE								
....NAVICULA	120	2	--	-	*	0	--	-
....PINNULARIA	--	-	--	-	--	-	--	-
...NITZSCHIACEAE								
....NITZSCHIA	440	6	7600#	25	1100	4	580	5
...SURIRELLACEAE								
....SURIRELLA	--	-	--	-	--	-	--	-
.CHRYSOPHYCEAE								
..CHRYSOMONADALES								
...OCHROMONADACEAE								
....OCHROMONAS	--	-	--	-	--	-	440	4
CRYPTOPHYTA (CRYPTOMONADS)								
.CRYPTOPHYCEAE								
..CRYPTOMONADALES								
...CRYPTOCHRYSIDACEAE								
....CHROOMONAS	--	-	--	-	*	0	--	-
...CRYPTOMONADACEAE								
....CRYPTOMONAS	*	0	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)								
.CYANOPHYCEAE								
..CHROOCOCCALES								
...CHROOCOCCACEAE								
....AGMENELLUM	--	-	4100	13	--	-	--	-
....ANACYSTIS	--	-	--	-	*	0	--	-
....COCCOCHLORIS	--	-	--	-	--	-	--	-
..HORMOGONALES								
...OSCILLATORIACEAE								
....LYNGBYA	--	-	--	-	--	-	--	-
....OSCILLATORIA	810	11	--	-	22000#	87	2200#	18
....SPIRULINA	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

06686000 NORTH PLATTE RIVER AT LISCO, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	LENGTH OF EXPO-SURE (DAYS) (00022)	BIOMASS CHLORO-PHYLL RATIO PERI-PHYTON (UNITS) (70950)	CHLOR-A PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2) (70957)	CHLOR-B PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2) (70958)	PERI-PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M (00573)	PERI-PHYTON BIOMASS ASH WEIGHT G/SQ M (00572)
FEB						
13...	28	--	.000	.000	.240	.240
MAY						
23...	36	126	11.9	.000	49.6	48.1
AUG						
15...	30	293	51.2	9.68	197	182

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)
AUG					
23...	0600	900	7.9	20.0	9.4
23...	0700	898	8.0	19.5	9.3
23...	0800	893	8.0	19.5	9.3
23...	0900	898	8.1	20.0	9.4
23...	1000	894	8.1	20.5	9.5
23...	1100	899	8.0	21.0	9.5
23...	1200	898	8.1	22.0	9.7
23...	1300	892	8.1	22.5	9.8
23...	1400	890	8.1	24.0	10.0
23...	1500	892	8.2	24.5	10.2
23...	1600	900	8.2	25.0	10.2
23...	1700	900	8.2	25.0	10.0
23...	1800	900	8.2	25.0	9.8
23...	1900	880	8.1	24.5	10.0

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)
AUG					
23...	2000	870	8.0	24.0	10.4
23...	2100	865	7.9	23.0	10.6
23...	2200	875	7.9	22.0	10.8
23...	2300	875	7.9	21.5	10.6
23...	2400	870	7.9	21.5	10.8
24...	0100	865	8.0	21.5	11.0
24...	0200	870	8.0	21.5	11.0
24...	0300	860	8.0	21.0	10.9
24...	0400	850	8.0	20.0	11.0
24...	0500	865	8.0	20.0	10.9
24...	0600	875	8.0	18.5	10.8
24...	0700	885	8.0	19.0	10.4

06686000 NORTH PLATTE RIVER AT LISCO, NE--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	855	865	895	1010	900	510	848	849	850	777	842	839
2	855	860	837	995	952	592	900	856	870	819	848	870
3	830	878	986	968	935	685	905	850	852	799	875	878
4	885	855	926	958	948	769	895	865	819	869	865	879
5	855	858	927	915	927	789	897	852	849	861	877	888
6	870	848	905	955	900	845	895	855	800	870	888	869
7	885	855	956	945	945	858	895	866	835	873	878	880
8	900	858	1060	945	910	858	875	862	837	874	885	879
9	865	833	999	958	808	885	875	862	821	875	881	898
10	855	831	1070	938	998	894	878	769	871	876	865	890
11	850	828	1070	965	858	893	788	848	822	878	878	861
12	850	877	920	925	975	898	860	838	834	859	875	828
13	845	859	918	925	975	904	872	883	850	885	875	849
14	850	800	928	930	938	878	868	856	855	876	868	859
15	870	837	897	952	975	898	830	808	848	878	892	866
16	842	845	897	925	978	887	845	863	879	787	892	845
17	882	840	947	912	978	885	838	855	842	808	858	850
18	880	870	994	902	980	890	840	872	891	821	757	859
19	890	877	825	900	822	855	862	865	889	864	830	864
20	878	857	840	900	815	875	865	869	848	874	860	859
21	885	967	838	885	837	882	875	840	848	847	860	862
22	888	899	898	895	838	884	802	861	858	803	842	870
23	888	869	899	887	825	880	868	850	860	810	875	859
24	888	868	898	945	865	898	835	858	861	809	858	869
25	880	859	900	925	897	908	850	889	860	849	869	858
26	855	842	897	915	880	900	853	895	859	639	877	866
27	869	850	898	910	878	887	850	895	858	640	829	860
28	885	857	925	925	870	887	835	861	860	630	835	859
29	885	858	967	935	---	896	850	864	861	635	824	860
30	878	867	1080	925	---	867	850	844	848	811	838	874
31	870	---	1090	925	---	880	---	854	---	799	865	---

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15.0	5.0	3.0	1.0	.0	4.0	5.0	13.0	14.0	25.0	24.0	19.0
2	15.0	6.0	3.0	1.0	1.0	4.0	9.0	11.0	21.0	20.0	24.0	22.0
3	15.0	7.0	3.0	1.0	1.0	.0	7.0	9.0	21.0	20.0	25.0	22.0
4	12.0	6.0	3.0	.0	.0	2.0	7.0	11.0	18.0	20.0	25.0	23.0
5	12.0	7.0	1.0	.0	.0	4.0	7.0	13.0	18.0	17.0	25.0	19.0
6	12.0	5.0	1.0	.0	.0	6.5	10.0	20.0	17.0	20.0	25.0	23.0
7	12.0	3.0	1.0	.0	.0	9.0	10.0	11.0	17.0	18.5	25.0	23.0
8	13.0	3.0	1.0	.0	.0	7.0	10.0	9.0	11.0	18.0	21.0	23.0
9	13.0	3.0	1.0	.0	.0	5.0	10.0	8.0	11.0	20.0	21.0	23.0
10	17.0	2.0	1.0	.0	.0	5.0	10.0	7.0	22.0	22.0	18.0	23.0
11	17.0	3.0	1.0	.0	.0	5.0	8.0	12.0	16.0	22.0	18.0	17.0
12	12.0	3.0	1.0	.0	.0	5.0	10.0	12.0	20.0	25.0	23.0	15.0
13	10.0	4.0	3.0	.0	1.0	9.0	14.0	14.0	26.0	25.0	20.0	16.0
14	10.0	2.0	1.0	.0	.0	11.0	14.0	15.0	20.0	22.0	14.0	13.0
15	13.0	2.0	1.0	.0	.0	8.0	16.0	15.0	25.0	20.0	12.0	15.0
16	11.0	5.0	2.0	1.0	1.0	7.0	19.0	21.0	17.0	18.0	14.0	19.0
17	15.0	3.0	3.0	1.0	2.0	7.0	19.0	16.0	17.0	21.0	23.0	19.0
18	15.0	3.0	3.0	.0	2.0	5.0	17.0	15.0	15.0	20.0	19.0	17.0
19	12.0	2.0	3.0	.0	1.0	4.0	16.0	18.0	18.0	25.0	20.0	20.0
20	12.0	1.0	2.0	.0	1.0	4.0	14.0	16.0	15.0	21.0	20.0	20.0
21	12.0	1.0	1.0	.0	1.0	4.0	13.0	15.0	25.0	27.0	16.5	19.0
22	10.0	2.0	1.0	1.0	1.0	7.0	14.0	12.0	20.0	27.0	22.0	19.0
23	11.0	2.0	1.0	1.0	.5	8.0	14.0	16.0	24.0	23.0	22.0	19.0
24	9.0	8.0	3.0	1.0	.0	12.0	14.0	13.0	22.0	24.0	19.0	16.0
25	5.0	5.0	.0	1.0	.0	12.0	13.0	18.0	23.0	24.0	19.5	16.5
26	5.0	4.0	1.0	1.0	.5	5.0	13.0	23.0	20.0	22.0	21.0	16.0
27	7.0	4.0	1.0	1.0	1.0	5.0	15.0	19.0	23.0	24.0	21.0	15.5
28	7.0	3.0	1.0	1.0	6.0	7.0	14.0	22.0	24.0	24.0	22.0	15.0
29	6.0	3.0	1.0	.0	---	8.0	11.0	17.0	22.0	24.0	22.0	15.0
30	6.0	3.0	1.0	1.0	---	8.0	11.0	14.0	23.0	24.0	19.0	18.0
31	4.0	---	1.0	.0	---	5.0	---	11.0	---	19.0	19.0	---

06686000 NORTH PLATTE RIVER AT LISCO, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)
OCT 17...	1245	1460	13.0	549	2160	27	31
NOV 22...	0945	1260	1.0	221	752	--	--
DEC 19...	1215	1290	.5	252	878	--	--
JAN 16...	1300	1100	.5	271	805	--	--
FEB 13...	1300	1350	1.5	318	1160	--	--
MAR 20...	1100	1230	6.5	224	744	--	--
APR 17...	1120	975	19.0	167	440	--	--
MAY 23...	0930	890	18.0	352	846	--	--
JUN 18...	1430	928	18.0	373	935	--	--
JUL 16...	1545	268	20.0	90	65	--	--
AUG 15...	1000	559	16.0	143	216	--	--
SEP 18...	1030	1820	17.5	866	4260	35	39

DATE	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70344)	SED. SUSP. FALL DIAM. % FINER THAN .500 MM (70345)	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM (70346)
OCT 17...	36	68	83	100	--	--
NOV 22...	--	23	60	88	99	100
DEC 19...	--	30	35	35	93	100
JAN 16...	--	53	74	88	98	100
FEB 13...	--	68	68	77	88	95
MAR 20...	--	14	26	33	85	100
APR 17...	--	3	3	3	48	80
MAY 23...	--	50	79	90	100	--
JUN 18...	--	56	75	80	80	85
JUL 16...	--	95	95	96	98	100
AUG 15...	--	62	87	94	99	100
SEP 18...	50	78	96	98	100	--

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	NUMBER OF SAM-PLING POINTS (00063)	BED MAT. FALL DIAM. % FINER THAN .062 MM (80158)	BED MAT. FALL DIAM. % FINER THAN .125 MM (80159)	BED MAT. FALL DIAM. % FINER THAN .250 MM (80160)	BED MAT. FALL DIAM. % FINER THAN .500 MM (80161)	BED MAT. FALL DIAM. % FINER THAN 1.00 MM (80162)	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM (80171)	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM (80172)
NOV 22...	0945	1260	3	0	1	9	39	71	86	96	100	--
FEB 13...	1300	1350	5	--	--	0	14	54	74	89	99	100
MAY 23...	0930	890	5	--	0	13	45	66	84	97	100	--

06687000 BLUE CREEK NEAR LEWELLEN, NE

LOCATION.--Lat 41°20'07", long 102°10'21", in NE1/4 sec.30, T.16 N., R.42 W., Garden County, Hydrologic Unit 10180009, on right bank 130 ft (40 m) downstream from county highway bridge, 0.5 mi (0.8 km) downstream from bridge on U.S. Highway 26, 0.8 mi (1.3 km) upstream from mouth, and 1.5 mi (2.4 km) west of Lewellen.

DRAINAGE AREA.--1,190 mi² (3,082 km²), revised, approximately, of which about 80 mi² (207 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--October 1930 to current year.

REVISED RECORDS.--WSP 1310: 1941(M). WDR NE-67: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,310.04 ft (1,008.900 m) National Geodetic Vertical Datum of 1929. See WSP 1918 for history of changes prior to Apr. 10, 1958.

REMARKS.--Records good except those for winter period, which are fair. Natural flow of stream affected by ground-water withdrawals and diversions for irrigation and return flow from irrigated areas.

AVERAGE DISCHARGE.--49 years, 69.5 ft³/s (1.968 m³/s), 50,350 acre-ft/yr (62.1 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 720 ft³/s (20.4 m³/s) May 20, 1938, gage height, 6.46 ft (1.969 m), present datum, from rating curve extended above 500 ft³/s (14.2 m³/s); maximum gage height, 6.93 ft (2.112 m), present datum, Dec. 21, 1945, backwater from ice; no flow for short periods in 1940, 1947, 1957, 1960-61, 1963, 1971.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 480 ft³/s (13.6 m³/s) Feb. 24, gage height, 5.50 ft (1.676 m); maximum gage height, 6.22 ft (1.896 m) Feb. 12, backwater from ice; minimum daily discharge, 0.43 ft³/s (0.012 m³/s) July 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	84	91	86	76	104	104	85	57	16	12	12
2	19	89	84	88	76	107	103	87	58	19	15	10
3	19	87	86	90	76	98	102	85	62	14	15	9.3
4	19	87	90	90	84	98	96	85	55	11	9.3	10
5	19	85	92	92	90	103	96	85	51	12	4.4	8.8
6	21	83	94	92	90	112	93	85	47	17	1.6	13
7	22	82	96	92	90	113	92	83	48	23	.51	20
8	33	83	96	90	90	112	93	94	55	20	.60	20
9	42	83	96	90	90	111	93	120	61	11	2.4	20
10	42	82	100	90	94	109	92	119	62	2.8	4.1	20
11	49	80	110	90	96	112	106	116	69	1.2	2.4	26
12	49	83	110	90	98	112	111	106	61	2.4	1.1	32
13	51	86	110	90	98	109	111	101	51	5.6	1.9	40
14	52	84	106	90	98	108	104	97	42	3.7	3.1	62
15	63	86	104	92	80	108	98	97	36	.51	9.3	54
16	67	87	104	96	60	111	91	96	30	.43	13	52
17	66	87	104	98	65	108	89	94	28	2.8	18	50
18	68	89	104	102	100	123	89	92	31	4.1	14	44
19	83	84	110	100	230	123	86	93	33	3.1	13	37
20	86	85	104	100	300	121	86	93	33	3.7	9.8	21
21	85	84	100	100	330	115	85	85	28	3.7	4.4	18
22	86	84	100	100	330	117	86	77	21	2.6	2.6	18
23	93	86	108	94	290	113	85	77	17	1.4	.95	23
24	91	89	120	90	390	109	85	77	18	1.4	.95	21
25	92	90	109	78	240	106	86	74	15	1.1	4.8	18
26	93	93	106	78	101	103	87	67	14	1.4	23	17
27	93	90	117	78	99	101	85	65	13	13	29	17
28	92	89	110	76	99	101	86	64	14	12	20	20
29	92	90	94	76	---	103	85	45	17	15	15	19
30	90	93	90	76	---	109	85	66	15	20	13	19
31	86	---	86	76	---	106	---	54	---	15	13	---
TOTAL	1882	2584	3131	2772	3960	3385	2790	2664	1142	259.94	277.21	751.1
MEAN	60.7	86.1	101	89.4	141	109	93.0	85.9	38.1	8.39	8.94	25.0
MAX	93	93	120	102	390	123	111	120	69	23	29	62
MIN	19	80	84	76	60	98	85	45	13	.43	.51	8.8
AC-FT	3730	5130	6210	5500	7850	6710	5530	5280	2270	516	550	1490

CAL YR 1978 TOTAL 23670.83 MEAN 64.9 MAX 176 MIN .10 AC-FT 46950
WTR YR 1979 TOTAL 25598.25 MEAN 70.1 MAX 390 MIN .43 AC-FT 50770

06687500 NORTH PLATTE RIVER AT LEWELLEN, NE

LOCATION.--Lat 41°18'37", long 102°09'00", in SE1/4NW1/4 sec.33, T.16 N., R.42 W., Garden County, Hydrologic Unit 10180009, on right bank 28 ft (9 m) upstream from county highway bridge, 1 mi (2 km) south of Lewellen, and approximately 1.5 mi (2.4 km) upstream from high-water line of Lake McConaughy.

DRAINAGE AREA.--28,600 mi^2 (74,100 km^2), approximately, of which about 25,400 mi^2 (65,800 km^2) contributes directly to surface runoff.

PERIOD OF RECORD.--July to September 1931, December 1940 to current year.

REVISED RECORDS.--WDR NE-67, WDR NE-76-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,290.16 ft (1,002.841 m) National Geodetic Vertical Datum of 1929. July to September 1931 nonrecording gage near present site at different datum. December 1940 to Sept. 19, 1973, water-stage recorders on two channels at site 0.9 mi (1.4 km) downstream at datum approximately 6 ft (1.8 m) lower.

REMARKS.--Records good except those for winter period, which are fair. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,500 ft^3/s (382 m^3/s) June 4, 1971; minimum daily, 44 ft^3/s (1.25 m^3/s) July 13, 1954.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,420 ft^3/s (68.5 m^3/s) July 29, gage height, 5.82 ft (1.774 m); maximum gage height, 7.10 ft (2.164 m) Feb. 20, backwater from ice; minimum daily discharge, 290 ft^3/s (8.21 m^3/s) July 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1680	1570	1850	980	820	2050	1350	1080	1080	1120	1890	1460
2	1720	1570	1600	860	860	2050	1200	1060	1100	1320	1700	1320
3	1700	1540	1550	740	900	2000	1120	1030	1030	1240	1680	1260
4	1610	1540	1500	600	1000	1950	1200	868	900	1240	1570	1200
5	1540	1540	1500	800	1300	1900	1140	900	836	1200	1390	1160
6	1430	1520	1500	800	1500	1850	1120	936	726	1180	1120	1140
7	1300	1500	1550	840	1500	1800	1140	936	670	1160	788	1120
8	1320	1500	1300	900	1800	1680	1100	1080	712	1030	600	1030
9	1430	1480	1400	960	1900	1600	1040	1460	698	884	588	990
10	1610	1520	1500	1050	2000	1550	1040	1500	804	712	460	972
11	1720	1480	1500	1150	2000	1450	1300	1320	990	670	430	1120
12	1840	1480	1600	1200	2100	1350	1460	1180	1040	564	450	1300
13	1840	1480	1850	1200	2150	1300	1480	1280	990	440	470	1630
14	1790	1480	1750	1250	2150	1300	1390	1300	900	353	440	1940
15	1720	1460	1800	1250	2150	1280	1300	1300	884	308	460	2040
16	1720	1430	1700	1250	2000	1260	1260	1260	900	290	480	2090
17	1700	1430	1550	1300	1900	1300	1180	1100	936	299	564	1990
18	1570	1400	1600	1350	1900	1460	1200	1010	954	308	656	1960
19	1630	1400	1650	1400	2000	1390	1240	1010	1010	344	972	1960
20	1720	1100	1700	1400	2100	1320	1260	990	1120	344	1160	1910
21	1720	800	1650	1400	2150	1300	1260	954	1300	335	1260	1840
22	1820	900	1600	1400	2100	1430	1220	918	1260	353	1410	1740
23	1910	1000	1450	1300	2100	1500	1200	1040	1180	344	1480	1630
24	1860	1100	1450	1200	2050	1410	1140	990	1180	344	1460	1480
25	1770	1200	1450	1140	2050	1390	1140	852	1200	430	1320	1520
26	1650	1300	1450	1100	2050	1260	1080	712	1240	576	1390	1540
27	1590	1400	1400	1040	2050	1220	1080	656	1160	788	1590	1520
28	1650	1500	1250	1000	2050	1220	1060	656	1120	1260	1570	1630
29	1630	1600	1250	940	---	1260	1060	656	954	2340	1650	1700
30	1590	1800	1200	900	---	1260	1060	820	936	2040	1650	1790
31	1590	---	1100	800	---	1280	---	918	---	1990	1540	---
TOTAL	51370	42020	47200	33500	50630	46370	35820	31772	29770	25806	34188	45982
MEAN	1657	1401	1523	1081	1808	1496	1194	1025	992	832	1103	1533
MAX	1910	1800	1850	1400	2150	2050	1480	1500	1300	2340	1890	2090
MIN	1300	800	1100	600	820	1220	1040	656	670	290	430	972
AC-FT	101900	83350	93620	66450	100400	91970	71050	63020	59050	51190	67810	91210

CAL YR 1978 TOTAL 477896 MEAN 1309 MAX 4560 MIN 310 AC-FT 947900
WTR YR 1979 TOTAL 474428 MEAN 1300 MAX 2340 MIN 290 AC-FT 941000

06690000 LAKE MCCONAUGHY NEAR KEYSTONE, NE

LOCATION.--Lat 41°12'45", long 101°40'03", in NW1/4SW1/4 sec.3, T.14 N., R.38 W., Keith County, Hydrologic Unit 10180014, near right bank at outlet tower of Kingsley Dam on North Platte River, 4.5 mi (7.2 km) west of Keystone.

DRAINAGE AREA.--29,300 mi^2 (75,900 km^2), approximately, of which about 25,800 mi^2 (66,800 km^2) contributes directly to surface runoff.

PERIOD OF RECORD.--February 1941 to current year.

GAGE.--Electric tape gage read once daily. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Reservoir is formed by earthfill dam; storage began Feb. 9, 1941. Capacity, 1,948,000 acre-ft (2.40 km^3) between elevations 3,130.0 ft (954.02 m), sill of outlet gates, and 3,270.0 ft (996.70 m), top of morning-glory spillway gates. Elevation of crest of morning-glory spillway is 3,254.0 ft (991.82 m). Dead storage negligible. Figures given herein represent total contents. Water is used for power development and irrigation in South-Central Nebraska by the Central Nebraska Public Power and Irrigation District.

COOPERATION.--Records of elevations and capacity table furnished by the Central Nebraska Public Power and Irrigation District.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 1,920,000 acre-ft (2.37 km^3) July 12-16, 1971, elevation, 3,269.1 ft (996.42 m); minimum observed since operation of reservoir began, 32,860 acre-ft (40.5 hm^3) Sept. 29, 1941, elevation, 3,153.4 ft (961.16 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 1,501,000 acre-ft (1.85 km^3) July 1-10, elevation, 3,254.9 ft (992.09 m); minimum observed, 1,130,000 acre-ft (1.39 km^3) Oct. 1-3, elevation, 3,239.9 ft (987.52 m).

MONTHEND ELEVATION AND CONTENTS, AT 0800, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

Date	Elevation (feet)	Contents	Change in contents (acre-feet)
Sept. 30	3,239.8	1,128,000	-
Oct. 31	3,241.2	1,160,000	+32,000
Nov. 30	3,242.6	1,192,000	+32,000
Dec. 31	3,244.2	1,230,000	+38,000
CAL YR 1978	-	-	-70,000
Jan. 31	3,245.2	1,254,000	+24,000
Feb. 28	3,246.8	1,293,000	+39,000
Mar. 31	3,250.0	1,372,000	+79,000
Apr. 30	3,252.1	1,427,000	+55,000
May 31	3,253.5	1,464,000	+37,000
June 30	3,254.8	1,499,000	+35,000
July 31	3,251.8	1,419,000	-80,000
Aug. 31	3,248.6	1,337,000	-82,000
Sept. 30	3,250.0	1,372,000	+35,000
WTR YR 1979	-	-	+244,000

06690500 NORTH PLATTE RIVER NEAR KEYSTONE, NE

LOCATION.--Lat 41°12'30", long 101°37'50", in SW1/4 sec.1, T.14 N., R.38 W., Keith County, Hydrologic Unit 10180014, on right bank 0.2 mi (0.3 km) downstream from diversion dam of Sutherland Reservoir supply canal and 2.5 mi (4.0 km) southwest of Keystone.

DRAINAGE AREA.--29,300 mi² (75,900 km²), approximately, of which about 25,800 mi² (66,800 km²) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June to August 1917, July to September 1939, May to September 1940, January to April 1941, March 1942 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1390: 1942, 1946-47. WSP 1630: 1958. WDR NE-67, WDR NE-76-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,105.59 ft (946.584 m) National Geodetic Vertical Datum of 1929, (Nebraska Public Power District bench mark). See WSP 1918 for history of changes prior to May 1, 1964.

REMARKS.--Records good. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas. Flow completely regulated by Lake McConaughy (station 06690000) since Feb. 9, 1941. Supply canal for Nebraska Public Power District diverts 0.2 mi (0.3 km) upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 20,300 ft³/s (575 m³/s) June 30, 1917, from graph based on daily gage readings; no flow for many days in 1975-79.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,250 ft³/s (63.7 m³/s) Aug. 8, gage height, 5.59 ft (1.704 m); no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	407	212	.00	.00	.00	.00	.00	.00	190	310	172	441
2	457	122	.00	.00	.00	.00	.00	.00	187	470	163	447
3	476	40	.00	.00	.00	.00	.03	.00	187	505	166	435
4	545	.00	.00	.00	.00	.00	.00	.00	190	541	374	503
5	582	.00	.00	.00	.00	.00	.00	.00	154	520	690	577
6	556	.00	.00	.00	.00	.00	.00	.00	157	492	1010	572
7	564	.00	.00	.00	.00	.00	.02	.00	131	495	1250	561
8	559	.00	.00	.00	.00	.00	.00	.00	152	482	1410	548
9	551	.00	.00	.00	.00	.00	.00	.00	163	581	1590	542
10	537	.00	.00	.00	.00	.00	.00	.00	164	672	1560	550
11	540	.00	.00	.00	.00	.00	.00	.00	158	830	1540	502
12	542	.00	.00	.00	.00	.00	17	.00	158	1140	1670	434
13	536	.00	.00	.00	.00	.00	.80	.00	158	1360	1870	388
14	542	.00	.00	.00	.40	.00	.00	.00	158	1490	1850	275
15	538	.00	.00	.00	.00	.00	.00	.00	160	1580	1760	252
16	534	.00	.00	.00	.00	.00	.00	.00	164	1570	1560	232
17	542	.00	.00	.00	.00	.00	.00	23	165	1430	1520	232
18	539	.00	.00	.00	.00	.00	.00	75	164	1250	1700	223
19	534	.00	.00	.00	.00	.00	.00	94	166	1280	1690	219
20	542	.00	.00	.00	.00	.00	.00	94	169	1390	1410	223
21	542	.00	.00	.00	.00	.00	.00	126	154	1380	1100	223
22	539	.00	.00	.00	.00	.00	.00	187	151	1420	987	226
23	542	.00	.00	.00	.00	.00	.00	184	142	1520	624	230
24	539	.00	.00	.00	.00	.00	.00	184	140	1400	330	151
25	541	.00	.00	.00	.00	.00	.00	187	141	1160	458	19
26	535	.00	.00	.00	.00	.00	.00	187	194	1030	545	28
27	528	.00	.00	.00	.00	.00	.00	190	227	1060	419	49
28	526	.00	.00	.00	.00	.00	.00	190	225	840	330	61
29	526	.00	.00	.00	---	.00	.00	190	184	404	476	67
30	523	.00	.00	.00	---	.00	.00	190	139	160	447	71
31	414	---	.00	.00	---	.00	---	194	---	178	382	---
TOTAL	16378	374.00	.00	.00	.40	.00	17.85	2295.00	4992	28940	31053	9277
MEAN	528	12.5	.000	.000	.014	.000	.60	74.0	166	934	1002	309
MAX	582	212	.00	.00	.40	.00	17	194	227	1580	1870	577
MIN	407	.00	.00	.00	.00	.00	.00	.00	131	160	163	19
AC-FT	32490	742	.00	.00	.8	.00	35	4550	9900	57400	61590	18400

CAL YR 1978 TOTAL 144661.85 MEAN 396 MAX 2640 MIN .00 AC-FT 286900
WTR YR 1979 TOTAL 93327.25 MEAN 256 MAX 1870 MIN .00 AC-FT 185100

06690500 NORTH PLATTE RIVER NEAR KEYSTONE, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water year 1973 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	TEMPER-ATURE (DEG C) (00010)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	TEMPER-ATURE (DEG C) (00010)
OCT					JUL				
02...	1025	534	782	16.0	23...	0930	1510	750	15.0
03...	1000	450	753	8.0	30...	1005	146	760	17.0
12...	1100	541	750	8.0	AUG				
24...	1137	537	750	8.0	06...	1034	951	758	--
JUN					13...	0940	1850	775	15.0
11...	0830	155	687	--	20...	0944	1670	777	--
19...	1250	162	681	10.5	27...	0959	471	777	16.0
26...	1030	202	800	19.0	SEP				
JUL					04...	1005	479	775	10.0
02...	0755	492	778	7.0	10...	1147	540	761	11.0
09...	0820	490	785	--	17...	0934	237	765	9.0
09...	1231	490	760	17.0	27...	1040	160	782	17.5
16...	0930	1570	747	14.0					

DATE	TIME	PH (UNITS) (00400)	COLOR (PLAT-INUM-COBALT UNITS) (00080)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)
OCT								
02...	1025	7.3	5	220	38	56	19	88
JUN								
26...	1030	8.1	--	200	23	50	19	87
SEP								
27...	1040	8.3	5	220	28	56	19	85

DATE	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE (MG/L AS HCO3) (00440)	CAR-BONATE (MG/L AS CO3) (00445)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)
OCT									
02...	2.6	11	220	0	180	200	21	.5	28
JUN									
26...	2.7	10	--	--	180	180	19	.5	27
SEP									
27...	2.5	11	--	--	190	170	17	.5	28

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P) (00666)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)
OCT								
02...	535	771	.73	.57	.04	170	20	10
JUN								
26...	501	273	.68	.01	.01	160	10	30
SEP								
27...	502	217	.68	.16	.11	160	10	90

06691000 NORTH PLATTE RIVER NEAR SUTHERLAND, NE

LOCATION.--Lat 41°12'37", long 101°06'53", in sec.4, T.14 N., R.33 W., Lincoln County, Hydrologic Unit 10180014, on left bank 80 ft (24 m) downstream from bridge on county road, 2.5 mi (4.0 km) upstream from Birdwood Creek, and 3.5 mi (5.6 km) north of Sutherland.

DRAINAGE AREA.--29,800 mi² (77,200 km²), approximately, of which about 26,120 mi² (67,700 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--June to October 1917, July 1931 to August 1933 (irrigation seasons only), May to September 1935, May 1936 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 976: 1942. WDR NE-67, WDR NE-76-1: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 2,920 ft (890 m), from topographic map. Prior to Apr. 29, 1936, nonrecording gage near present site at different datums. Apr. 29, 1936, to Oct. 6, 1971, water-stage recorder at site 80 ft (24 m) upstream at present datum.

REMARKS.--Records good except those above 1,000 ft³/s (28.3 m³/s) and those for winter period, which are fair. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 20,300 ft³/s (575 m³/s) June 29, 1917, from discharge graph based on daily gage readings, from rating curve extended above 16,000 ft³/s (453 m³/s); no flow July 24-28, 30, 31, 1931, Aug. 7, 1934, July 20-28, 1940.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,620 ft³/s (45.9 m³/s) Aug. 16, gage height, 2.81 ft (0.856 m); minimum daily, 56 ft³/s (1.59 m³/s) Aug. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	251	510	130	108	98	150	209	94	123	226	203	100
2	308	371	120	104	92	175	208	93	108	295	103	100
3	356	296	116	102	90	200	189	98	103	446	66	89
4	456	242	116	98	94	220	174	98	103	481	56	81
5	588	190	125	96	96	214	166	93	106	529	104	89
6	588	171	125	92	100	229	181	94	90	475	226	121
7	584	161	125	90	104	261	185	93	107	430	442	151
8	589	155	130	86	104	238	189	93	103	401	649	193
9	592	153	135	84	104	206	185	93	138	336	679	193
10	597	148	140	82	106	165	189	97	158	348	1040	202
11	605	147	140	80	106	185	255	86	124	361	1080	237
12	617	150	145	80	106	165	296	80	97	447	1090	272
13	613	155	145	80	106	177	215	75	88	723	1260	241
14	614	150	145	80	106	162	179	73	84	993	1460	174
15	612	142	145	82	100	154	162	68	71	1210	1590	131
16	612	138	145	84	90	158	160	64	62	1410	1540	103
17	629	134	140	90	90	174	158	63	142	1440	1360	90
18	635	136	135	90	96	206	151	64	128	1280	1420	92
19	633	135	130	92	100	241	144	71	105	1090	1520	92
20	621	135	130	94	106	228	140	73	71	1110	1480	94
21	611	135	118	100	110	303	130	72	64	1140	1390	111
22	630	140	118	104	110	488	133	74	62	1170	1030	127
23	633	140	120	106	120	373	138	88	62	1230	751	158
24	637	146	125	104	125	284	143	93	62	1310	307	177
25	639	150	125	102	125	253	123	93	60	1160	165	134
26	624	168	130	100	125	231	97	93	60	916	275	94
27	616	147	125	100	125	206	115	94	61	866	281	66
28	625	140	120	98	125	185	115	90	170	1050	177	66
29	617	135	116	98	---	180	116	109	240	729	130	62
30	612	135	114	98	---	199	116	249	223	412	177	58
31	608	---	110	94	---	198	---	158	---	214	130	---
TOTAL	17952	5257	3983	2898	2955	6850	4961	2872	3175	24228	22401	3898
MEAN	579	175	128	93.5	106	221	165	92.6	106	782	723	130
MAX	639	510	145	108	125	488	296	249	240	1440	1590	272
MIN	251	134	110	80	90	150	97	63	60	214	56	58
AC-FT	35610	10430	7900	5750	5860	13590	9840	5700	6300	48060	44430	7730

CAL YR 1978 TOTAL 135708 MEAN 372 MAX 2300 MIN 35 AC-FT 269200
WTR YR 1979 TOTAL 101430 MEAN 278 MAX 1590 MIN 56 AC-FT 201200

06692000 BIRDWOOD CREEK NEAR HERSHEY, NE

LOCATION.--Lat 41°13'20", long 101°04'12", in NE1/4NW1/4 sec.2, T.14 N., R.33 W., Lincoln County, Hydrologic Unit 10180014, on left bank 60 ft (18 m) downstream from bridge on county road, 1 mi (2 km) upstream from mouth, and 5 mi (8 km) northwest of Hershey.

DRAINAGE AREA.--940 mi² (2,435 km²), approximately, of which about 80 mi² (207 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--May 1931 to current year.

REVISED RECORDS.--WSP 1390: 1948(M), 1949, 1951-52(M). WDR NE-67, WDR NE 76-1: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 2,920 ft (890 m), from topographic map. Jan. 1, 1931, to Dec. 16, 1934, nonrecording gage and Dec. 17, 1934, to Nov. 4, 1953, water-stage recorder, at site 50 ft (15 m) upstream at present datum.

REMARKS.--Records good. Natural flow of stream affected by ground-water withdrawals and diversions for irrigation and return flow from irrigated areas.

AVERAGE DISCHARGE.--48 years, 153 ft³/s (4.333 m³/s), 110,800 acre-ft/yr (0.137 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,770 ft³/s (50.1 m³/s) Apr. 1, 1949, gage height, 4.35 ft (1.326 m), from rating curve extended above 680 ft³/s (19.3 m³/s); maximum gage height, 5.12 ft (1.561 m) Dec. 15, 1940, backwater from ice; minimum daily discharge, 61 ft³/s (1.73 m³/s) Jan. 19, 1935, Apr. 7, 1938.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 266 ft³/s (7.53 m³/s) July 5, gage height, 1.32 ft (0.402 m); maximum gage height, 4.01 ft (1.222 m) Feb. 16, backwater from ice; minimum daily discharge, 105 ft³/s (2.97 m³/s) Sept. 3, 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	120	156	169	150	145	169	165	173	150	148	138	108
2	122	161	160	150	140	171	159	174	148	146	131	107
3	123	163	155	150	140	157	159	169	146	138	129	105
4	125	164	150	150	140	163	158	174	144	137	132	105
5	124	157	145	145	140	167	166	181	143	196	133	118
6	127	152	145	145	145	181	158	187	144	157	134	127
7	128	154	145	145	145	182	162	184	154	148	123	131
8	127	155	140	145	145	184	156	181	148	148	110	137
9	126	155	135	145	150	177	158	181	152	143	109	137
10	125	154	135	145	150	169	163	175	150	140	108	138
11	126	157	140	145	155	172	205	176	146	138	108	144
12	127	156	140	145	155	181	188	187	142	133	109	151
13	125	160	145	150	160	175	179	182	138	134	112	150
14	122	159	145	155	165	167	181	180	134	130	114	145
15	128	159	138	175	170	172	177	180	133	131	116	143
16	126	157	156	180	150	181	172	179	130	131	116	138
17	126	158	155	180	150	178	168	179	143	138	114	139
18	125	158	151	190	150	185	163	173	132	124	112	131
19	125	158	155	190	160	170	162	171	127	120	113	127
20	134	160	153	200	170	178	154	171	126	116	113	123
21	165	160	164	210	168	194	157	169	118	110	113	121
22	162	160	169	210	170	212	157	170	118	111	110	124
23	154	167	171	210	163	175	157	165	122	110	106	123
24	151	172	169	200	161	173	163	161	122	110	107	125
25	152	173	164	190	162	172	162	160	121	111	111	125
26	150	172	162	180	168	166	158	159	122	112	114	136
27	151	165	162	170	169	162	163	158	119	125	109	151
28	150	167	163	165	163	161	161	155	123	157	108	148
29	150	168	163	160	---	168	164	166	119	143	107	141
30	152	173	161	155	---	166	168	178	118	137	109	132
31	154	---	155	150	---	167	---	152	---	142	108	---
TOTAL	4202	4830	4760	5180	4349	5395	4963	5350	4032	4164	3576	3930
MEAN	136	161	154	167	155	174	165	173	134	134	115	131
MAX	165	173	171	210	170	212	205	187	154	196	138	151
MIN	120	152	135	145	140	157	154	152	118	110	106	105
AC-FT	8330	9580	9440	10270	8630	10700	9840	10610	8000	8260	7090	7800

CAL YR 1978 TOTAL 53521 MEAN 147 MAX 223 MIN 99 AC-FT 106200
WTR YR 1979 TOTAL 54731 MEAN 150 MAX 212 MIN 105 AC-FT 108600

06692500 LINCOLN COUNTY DRAIN NO. 1 NEAR NORTH PLATTE, NE

LOCATION.--Lat 41°09'40", long 100°47'25", in NE1/4NE1/4 sec.30, T.14 N., R.30 W., Lincoln County, Hydrologic Unit 10180014, on left bank 25 ft (8 m) upstream from highway bridge, 0.8 mi (1.3 km) upstream from mouth, and 1.5 mi (2.4 km) northwest of city of North Platte.

PERIOD OF RECORD.--March 1931 to September 1932 (published as Lincoln County drain at North Platte), April 1955 to September 1979 (discontinued). Future records at this site may be obtained from Nebraska Department of Water Resources.

GAGE.--Water-stage recorder. Altitude of gage is 2,805 ft (855.0 m), from topographic map. Prior to Apr. 29, 1955, nonrecording gage at datum 1.0 ft (0.30 m) higher.

REMARKS.--Records good. Discharge is chiefly return flow from irrigated area.

AVERAGE DISCHARGE.--25 years, 62.9 ft^3/s (1.781 m^3/s), 45,570 acre-ft/yr (56.2 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 588 ft^3/s (16.7 m^3/s) June 22, 1965, gage height, 4.05 ft (1.234 m); minimum daily, 8.0 ft^3/s (0.23 m^3/s) Mar. 15, 1977, result of freeze out.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 195 ft^3/s (5.52 m^3/s) Aug. 25, gage height, 2.09 ft (0.637 m); minimum daily, 25 ft^3/s (0.71 m^3/s) Feb. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	132	43	34	30	27	30	32	36	59	51	118	104
2	133	39	34	34	28	31	31	60	60	49	116	106
3	133	39	34	35	30	30	31	47	60	47	99	114
4	131	39	34	34	30	27	30	42	59	46	82	107
5	80	39	34	34	30	28	29	39	52	47	87	106
6	70	38	34	32	30	31	29	35	50	81	91	116
7	66	38	34	30	29	30	30	32	53	81	68	112
8	64	38	34	28	28	29	31	40	58	76	79	120
9	63	37	32	28	27	29	30	53	62	85	93	149
10	61	37	32	27	27	28	31	59	68	78	99	141
11	60	37	32	28	27	28	34	47	59	73	106	154
12	59	37	33	28	28	27	34	33	57	63	108	163
13	58	37	33	28	25	26	34	32	58	50	111	150
14	57	36	33	28	26	26	34	31	59	49	118	161
15	57	36	34	27	26	26	35	30	60	62	118	138
16	56	36	34	27	26	26	33	30	58	62	141	138
17	56	35	34	27	26	26	33	30	63	66	152	131
18	57	35	34	27	26	28	32	32	67	74	148	129
19	57	34	34	30	27	27	32	46	84	83	157	137
20	53	35	34	34	26	26	31	45	71	79	150	131
21	52	35	33	34	26	28	31	44	71	75	145	105
22	53	35	33	34	29	32	30	41	74	79	157	104
23	52	35	33	34	28	33	30	48	76	88	152	97
24	51	34	33	33	29	32	28	50	76	89	170	80
25	49	35	33	33	29	32	29	48	79	111	180	90
26	48	36	32	33	29	33	29	47	73	99	174	91
27	47	35	32	32	32	33	29	57	69	92	162	86
28	46	35	32	30	30	33	29	53	74	166	136	79
29	45	34	31	31	---	32	29	53	57	140	122	71
30	45	34	30	30	---	32	29	59	48	113	118	77
31	44	---	28	29	---	32	---	57	---	113	116	---
TOTAL	2035	1093	1021	949	781	911	929	1356	1914	2467	3873	3487
MEAN	65.6	36.4	32.9	30.6	27.9	29.4	31.0	43.7	63.8	79.6	125	116
MAX	133	43	34	35	32	33	35	60	84	166	180	163
MIN	44	34	28	27	25	26	28	30	48	46	68	71
AC-FT	4040	2170	2030	1880	1550	1810	1840	2690	3800	4890	7680	6920

CAL YR 1978 TOTAL 21497 MEAN 58.9 MAX 175 MIN 22 AC-FT 42640
WTR YR 1979 TOTAL 20816 MEAN 57.0 MAX 180 MIN 25 AC-FT 41290

06693000 NORTH PLATTE RIVER AT NORTH PLATTE, NE

LOCATION.--Lat 41°09'13", long 100°45'16", in sec.28, T.14 N., R.30 W., Lincoln County, Hydrologic Unit 10180014, on right bank 150 ft (46 m) downstream from bridge on U.S. Highway 83, 0.5 mi (0.8 km) north of city of North Platte, and 4.5 mi (7.2 km) upstream from confluence with South Platte River.

DRAINAGE AREA.--30,900 mi² (80,000 km²), approximately, of which about 26,300 mi² (68,100 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--February 1895 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WDR NE-67, WDR NE-76-1: Drainage area. WSP 2118: 1915(M).

GAGE.--Water-stage recorder. Datum of gage is 2,792.14 ft (851.044 m) National Geodetic Vertical Datum of 1929 (Nebraska Department of Roads bench mark). See WSP 2118 for history of changes prior to June 3, 1968.

REMARKS.--Records good except those for winter period, which are fair. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 29,600 ft³/s (838 m³/s) June 11, 1909, discharge measurement; minimum daily, 20 ft³/s (0.57 m³/s) Sept. 20, 1904.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,720 ft³/s (48.7 m³/s) Aug. 15, gage height, 4.42 ft (1.347 m); maximum gage height, 4.44 ft (1.353 m) Feb. 5, backwater from ice; minimum daily, 232 ft³/s (6.57 m³/s) June 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	316	849	440	310	270	400	491	317	396	448	628	321
2	448	720	400	310	270	400	480	317	357	467	535	300
3	512	627	390	310	280	420	454	299	341	521	424	310
4	601	552	390	310	290	460	443	300	321	611	372	294
5	645	471	380	310	290	500	444	284	306	670	359	279
6	780	425	360	300	300	540	410	271	286	781	386	300
7	790	411	350	300	310	580	403	269	323	638	421	310
8	790	404	350	300	320	600	391	294	362	562	557	345
9	800	397	350	300	330	600	361	347	379	552	716	383
10	809	397	350	300	340	560	396	354	430	503	978	390
11	790	383	350	310	340	503	507	326	376	521	1080	433
12	790	390	350	310	350	520	601	295	320	455	1100	520
13	800	383	350	320	350	512	517	296	304	528	1150	578
14	819	377	350	320	340	455	453	286	290	672	1400	560
15	819	364	360	320	320	436	424	264	284	839	1610	487
16	809	357	360	330	300	433	414	252	264	990	1680	424
17	790	357	360	330	300	448	394	243	284	1160	1550	389
18	800	357	360	330	320	495	386	241	345	1140	1390	371
19	849	364	370	330	340	560	392	244	321	990	1560	374
20	839	350	370	350	360	560	370	241	294	880	1570	418
21	849	340	370	360	400	638	341	240	270	980	1620	412
22	869	360	370	350	400	890	345	237	232	1030	1290	414
23	869	380	370	350	410	790	365	235	241	1070	1150	404
24	839	400	370	340	410	618	368	247	241	1180	929	440
25	829	410	370	330	410	552	375	238	241	1280	692	418
26	809	430	370	320	400	525	370	246	250	1030	680	370
27	809	440	360	310	400	481	339	253	246	929	637	351
28	819	448	350	300	400	473	323	242	265	1320	549	339
29	829	448	340	290	---	484	322	257	327	1350	455	345
30	809	455	330	290	---	510	329	505	390	919	406	339
31	809	---	320	280	---	506	---	474	---	700	370	---
TOTAL	23735	13046	11260	9820	9550	16449	12228	8914	9286	25716	28244	11618
MEAN	766	435	363	317	341	531	408	288	310	830	911	387
MAX	869	849	440	360	410	890	601	505	430	1350	1680	578
MIN	316	340	320	280	270	400	322	235	232	448	359	279
AC-FT	47080	25880	22330	19480	18940	32630	24250	17680	18420	51010	56020	23040

CAL YR 1978 TOTAL 210979 MEAN 578 MAX 2830 MIN 171 AC-FT 418500
WTR YR 1979 TOTAL 179866 MEAN 493 MAX 1680 MIN 232 AC-FT 356800

06762500 LODGEPOLE CREEK AT BUSHNELL, NE

LOCATION.--Lat 41°13'43", long 103°48'03", in sec.33, T.15 N., R.57 W., Kimball County, Hydrologic Unit 10190016, on right bank 1.5 mi (2.4 km) east of Bushnell and 1.5 mi (2.4 km) upstream from Oliver Reservoir.

DRAINAGE AREA.--1,361 mi² (3,525 km²).

PERIOD OF RECORD.--October 1931 to current year. Records for March to September 1931 at site 1.5 mi (2.4 km) upstream not equivalent owing to diversions. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1390: 1933, 1935, 1937-38, 1941, 1948-49. WSP 1730: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4,812.3 ft (1,466.79 m) National Geodetic Vertical Datum of 1929. Prior to Mar. 26, 1938, nonrecording gage at present site and datum.

REMARKS.--Records good. Natural flow of stream affected by ground-water withdrawals and diversions for irrigation and return flow from irrigated areas. Diversions for irrigation of about 12,600 acres (51.0 km²) above station.

AVERAGE DISCHARGE.--48 years, 11.1 ft³/s (0.314 m³/s), 8,040 acre-ft/yr (9.91 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,500 ft³/s (467 m³/s) Sept. 15, 1950, gage height, 9.98 ft (3.042 m), from rating curve extended above 2,700 ft³/s (76.5 m³/s) on basis of slope-area measurement of peak flow; minimum daily, 0.09 ft³/s (0.003 m³/s) July 20, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 264 ft³/s (7.48 m³/s) July 25, gage height, 4.51 ft (1.375 m), from floodmark in gage well; minimum daily, 1.4 ft³/s (0.040 m³/s) Aug. 20, 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.9	4.7	6.5	3.6	5.2	6.3	7.3	5.5	3.8	5.0	3.5	3.4
2	3.9	5.0	3.7	3.6	5.8	6.2	6.9	5.7	3.9	5.6	3.5	3.1
3	3.7	5.0	3.6	3.6	9.0	6.0	6.7	5.7	3.7	5.6	3.2	3.3
4	3.7	5.0	3.6	3.6	10	6.1	6.5	5.5	3.9	6.2	3.2	2.7
5	3.7	5.0	5.9	3.6	7.1	6.2	6.2	5.2	3.7	5.4	3.2	3.1
6	3.8	5.0	6.5	3.6	9.0	6.2	6.0	4.7	3.4	8.4	2.9	2.7
7	4.2	4.7	5.6	3.6	3.7	6.3	6.4	5.0	3.4	9.0	2.9	2.1
8	4.5	4.7	5.0	4.0	5.0	6.3	6.3	7.1	3.2	9.2	2.9	2.2
9	4.2	5.0	3.2	4.4	9.6	6.1	6.4	6.9	3.2	6.5	2.7	1.8
10	4.2	5.0	3.2	5.0	12	5.9	6.8	6.8	3.2	4.0	2.7	1.9
11	4.2	5.0	3.8	5.2	20	5.8	7.7	7.0	3.2	5.2	2.7	2.6
12	4.2	5.0	4.2	5.2	23	5.8	6.8	6.4	3.2	3.9	2.7	2.8
13	4.5	5.0	4.6	5.0	21	5.8	7.0	6.2	3.0	3.8	2.5	2.8
14	4.2	5.0	5.0	4.6	21	5.7	6.5	5.8	2.9	3.1	2.9	2.8
15	3.9	5.0	5.6	4.8	18	5.7	6.4	5.9	3.2	5.0	2.2	3.0
16	3.9	5.3	5.6	5.0	16	5.8	6.3	6.0	3.4	3.2	2.4	3.2
17	4.2	5.6	5.2	5.2	14	5.9	6.2	5.4	3.7	3.0	2.0	3.5
18	4.2	5.3	5.6	5.2	10	5.4	6.2	5.3	3.9	2.9	1.8	3.3
19	4.2	5.0	6.0	5.2	8.0	7.5	6.0	4.7	4.2	3.2	1.6	2.8
20	4.2	5.0	6.0	5.2	6.0	6.4	5.9	4.1	3.9	2.5	1.4	3.1
21	4.2	5.0	6.0	5.2	6.0	6.7	6.0	4.5	3.9	2.0	1.6	3.3
22	5.0	5.6	6.0	5.2	6.0	6.8	6.0	4.6	4.2	2.0	1.4	3.3
23	4.5	5.3	6.4	5.2	6.0	6.2	6.0	4.6	4.2	3.9	2.2	3.2
24	4.5	5.3	6.4	5.2	6.0	6.6	5.5	3.9	4.5	2.5	3.7	3.3
25	4.5	5.9	6.2	5.2	6.0	7.5	5.8	3.7	4.5	51	3.7	3.3
26	4.5	5.9	5.8	5.2	6.5	7.2	5.6	3.7	4.5	57	2.0	3.5
27	4.5	5.9	5.4	5.2	6.4	6.8	5.5	3.2	5.0	6.5	38	3.8
28	4.7	6.2	4.8	5.2	6.4	6.7	5.3	3.0	4.7	4.7	4.7	3.7
29	4.2	6.2	4.4	5.2	---	6.8	5.4	3.4	4.7	14	4.2	3.8
30	4.5	6.2	4.0	5.2	---	7.3	5.4	4.2	4.7	7.7	3.7	3.8
31	4.5	---	3.6	5.2	---	7.9	---	3.7	---	4.2	3.6	---
TOTAL	131.1	157.8	157.4	146.4	282.7	197.9	187.0	157.4	114.9	256.2	121.7	91.2
MEAN	4.23	5.26	5.08	4.72	10.1	6.38	6.23	5.08	3.83	8.26	3.93	3.04
MAX	5.0	6.2	6.5	5.2	23	7.9	7.7	7.1	5.0	57	38	3.8
MIN	3.7	4.7	3.2	3.6	3.7	5.4	5.3	3.0	2.9	2.0	1.4	1.8
AC-FT	260	313	312	290	561	393	371	312	228	508	241	181

CAL YR 1978 TOTAL 2380.80 MEAN 6.52 MAX 493 MIN .80 AC-FT 4720
WTR YR 1979 TOTAL 2001.70 MEAN 5.48 MAX 57 MIN 1.4 AC-FT 3970

06762550 LODGEPOLE CREEK AT KIMBALL, NE

LOCATION.--Lat 41°14'50", long 103°38'32", in NW1/4SW1/4NW1/4 sec.28, T.15 N., R.55 W., Kimball County, Hydrologic Unit 10190016, at bridge on county road 0.8 miles north of U.S. Highway 30 at east edge of Kimball.

PERIOD OF RECORD.--Water year 1973 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (JTU) (00070)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT										
16...	1300	2.8	605	8.0	11.0	20	11.9	5.5	80000	K2800
NOV										
20...	1035	2.6	654	7.1	.0	30	11.4	5.7	85000	9400
DEC										
18...	1420	2.0	662	7.9	.0	15	9.6	9.6	K79000	80000
JAN										
15...	1400	5.9	730	7.9	.5	25	11.2	11	240000	40000
FEB										
12...	1430	8.8	443	7.9	.5	80	9.8	7.2	26000	81000
MAR										
19...	1300	19	530	7.9	.5	180	10.6	12	59000	66000
APR										
16...	1300	12	580	8.3	18.0	60	9.8	6.8	60000	26000
MAY										
14...	1330	10	562	8.3	19.0	40	10.6	7.2	20000	K3200
JUN										
20...	1230	5.3	590	8.1	21.5	40	8.1	11	59000	15000
JUL										
17...	1255	.37	778	7.9	22.5	20	7.5	6.6	14000	2400
AUG										
14...	1230	.74	790	8.0	15.0	100	10.0	28	K320000	92000
SEP										
17...	1230	3.2	640	7.8	13.5	55	6.4	11	200000	34000

K Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)
OCT										
16...	35	388	.53	2.93	1.6	1.8	1.3	3.1	4.7	1.9
NOV										
20...	28	421	.57	2.96	2.5	.89	.71	1.6	4.1	.78
DEC										
18...	32	404	.55	2.18	2.2	2.0	.80	2.8	5.0	.73
JAN										
15...	30	436	.59	6.95	2.8	1.4	1.2	2.6	5.4	.76
FEB										
12...	25	304	.41	7.22	.83	1.4	3.3	4.7	5.5	1.2
MAR										
19...	22	345	.47	17.7	1.8	.77	3.5	4.3	6.1	.84
APR										
16...	22	348	.47	11.3	1.8	.76	1.1	1.9	3.7	.55
MAY										
14...	26	340	.46	9.18	1.5	.51	.99	1.5	3.0	.48
JUN										
20...	30	373	.51	5.38	1.2	1.0	1.3	2.3	3.5	.79
JUL										
17...	60	509	.69	.51	1.7	4.3	.80	5.1	6.8	4.8
AUG										
14...	61	533	.72	1.07	2.6	4.4	.10	4.5	7.1	6.0
SEP										
17...	38	389	.53	3.36	1.1	--	--	--	--	.20

06762550 LODGEPOLE CREEK AT KIMBALL, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L CACO3) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LINITY (MG/L AS CACO3) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)
NOV										
20...	1035	240	0	70	17	39	1.1	8.5	230	46
FEB										
12...	1430	140	0	42	9.5	24	.9	13	150	26
MAY										
14...	1330	250	47	74	15	20	.6	8.0	200	40
AUG										
14...	1230	230	0	66	16	66	1.9	23	250	55

DATE	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00666)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)
NOV										
20...	.8	50	--	2.6	.67	--	--	140	--	--
FEB										
12...	.8	26	256	--	.99	--	--	90	--	--
MAY										
14...	.8	37	348	1.5	.36	11	200	150	0	30
AUG										
14...	.9	48	487	--	3.8	--	--	300	--	--

DATE	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MERCURY SUS- PENDED RECOV- ERABLE (UG/L AS HG) (71895)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)
NOV										
20...	--	40	--	20	--	--	--	--	--	--
FEB										
12...	--	120	--	50	--	--	--	--	--	--
MAY										
14...	1	20	0	10	.1	.0	.1	2	0	20
AUG										
14...	--	160	--	50	--	--	--	--	--	--

06763500 LODGEPOLE CREEK AT RALTON, NE

LOCATION.--Lat 41°02'00", long 102°24'00", in NE1/4NW1/4 sec.12, T.12 N., R.45 W., Deuel County, Hydrologic Unit 10190016, on right bank 20 ft (6 m) downstream from county road bridge at Ralton, 2.1 mi (3.4 km) north of Colorado-Nebraska State line, and 5.5 mi (8.8 km) southeast of Chappell.

DRAINAGE AREA.--3,307 mi² (8,565 km²).

PERIOD OF RECORD.--March to September 1931, June 1951 to September 1979 (discontinued).

REVISED RECORDS.--WSP 1730: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 3,590 ft (1,094 m), from topographic map. March to September 1931, nonrecording gage at site 0.2 mi (0.3 km) downstream at different datum.

REMARKS.--Natural flow of stream affected by ground-water withdrawals and diversions for irrigation and return flow from irrigated areas. Diversion for irrigation of about 24,300 acres (98.3 km²) above station.

AVERAGE DISCHARGE.--28 years (1951-79), 8.31 ft³/s (0.235 m³/s), 6,020 acre-ft/yr (7.42 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,560 ft³/s (129 m³/s) Aug. 15, 1968, gage height, 6.49 ft (1.978 m), from rating curve extended above 1,200 ft³/s (34.0 m³/s) on basis of slope-area measurement of peak flow; no flow at times in 1931, 1955, 1957, 1960, 1963-65, 1968, 1973-75, 1976 (entire year), 1977, 1978 (entire year), 1979 (entire year).

EXTREMES FOR CURRENT YEAR.--No flow for entire water year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
MEAN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
MAX	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

CAL YR 1978 TOTAL 0.00 MEAN .000 MAX .00 MIN .00 AC-FT .00
WTR YR 1979 TOTAL 0.00 MEAN .000 MAX .00 MIN .00 AC-FT .00

06764000 SOUTH PLATTE RIVER AT JULESBURG, CO

LOCATION.--Lat 40°58'46", long 102°15'15", in NW1/4NE1/4 and SE1/4NE1/4 (two channels) sec.33, T.12 N., R.44 W., Sedgwick County, Hydrologic Unit 10190018, on left bank of channel no. 4 (left channel) 215 ft (66 m) downstream from bridge, and on right bank of channel no. 2, 800 ft (244 m) downstream from bridge on U.S. Highway 385, 0.9 mi (1.4 km) southeast of Julesburg, 3.0 mi (4.8 km) upstream from Colorado-Nebraska State line, and 8 mi (13 km) downstream from Lodgepole Creek.

DRAINAGE AREA.--23,138 mi² (59,927 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1902 to current year. Monthly discharge only for some periods, published in WSP 1310. Published as "near Julesburg" 1903-08, 1915-16, and as "at Ovid" 1922-24.

REVISED RECORDS.--WSP 1310: 1902, 1906-07, 1940(P). WSP 1440: 1903-04. WSP 1730: Drainage area.

GAGE.--Two water-stage recorders. Datum of gages is 3,446.76 ft (1,050.572 m) National Geodetic Vertical Datum of 1929. See WSP 1710 or 1730 for history of changes prior to Oct. 14, 1956. Since Oct. 1, 1956, water-stage recorders on channels nos. 2 and 4. Channel no. 2: Oct. 1, 1956, to Sept. 22, 1965, at site 300 ft (90 m) downstream at present datum. Channel no. 4: Oct. 1, 1956, to Dec. 10, 1958, at site 135 ft (41.1 m) downstream at present datum. Since May 11, 1973, supplementary water-stage recorder on channel no. 2 at bridge 800 ft (240 m) upstream at same datum.

REMARKS.--Records good except those for winter period, which are fair. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation of 1,200,000 acres (4,860 km²) above station, and return flow from irrigated areas.

COOPERATION.-- Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--77 years, 475 ft³/s (13.45 m³/s), 344,100 acre-ft/yr (0.424 km³/yr).

EXTREMES FOR PERIOD OF RECORD.-- Maximum discharge, 37,600 ft³/s (1,060 m³/s) June 20, 1965, gage height, 10.44 ft (3.182 m), from floodmarks in gage well; no flow Aug. 18-20, 1902, July 25 to Aug 7, 1903.

EXTREMES FOR CURRENT YEAR.-- Maximum discharge, 7,970 ft³/s (226 m³/s) June 15 at 0600, gage height, 7.70 ft (2.347 m); minimum daily, 23 ft³/s (0.65 m³/s) Oct. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	76	92	70	195	414	318	179	1530	1720	362	800
2	26	75	79	75	180	375	305	172	1820	1380	296	701
3	28	72	56	75	200	352	299	166	2370	1090	219	613
4	29	72	68	75	205	335	294	154	2960	888	164	542
5	34	72	87	70	195	324	293	136	3030	724	115	454
6	45	72	101	70	200	314	291	123	2520	632	72	372
7	49	72	96	65	220	308	290	134	2280	570	57	329
8	47	74	87	70	235	289	288	252	2200	488	44	263
9	47	75	89	70	270	241	287	317	2240	380	40	229
10	63	76	92	90	300	206	287	291	2570	302	39	212
11	80	74	96	95	315	190	317	315	3070	230	38	214
12	115	78	96	100	280	178	331	384	3820	185	36	240
13	125	80	96	90	270	172	332	572	4820	147	34	306
14	136	79	95	90	370	165	308	1200	6610	117	36	311
15	136	79	114	115	540	160	305	1380	7650	99	166	296
16	113	78	115	130	720	158	306	1300	6690	86	263	307
17	89	78	116	135	820	153	314	1210	6250	80	281	308
18	83	78	119	135	910	165	373	1050	6000	79	320	362
19	102	78	121	135	1000	175	401	919	6340	79	470	385
20	121	89	126	155	1100	171	383	864	6640	67	715	322
21	128	83	128	205	1080	168	355	910	6780	63	1260	278
22	130	88	120	240	1040	180	336	1150	6970	58	1790	261
23	136	104	116	270	990	177	306	1050	6950	54	2160	255
24	139	115	119	325	850	174	241	986	6120	52	2420	238
25	129	107	124	330	705	196	236	1030	5770	50	2130	203
26	129	104	125	250	630	262	227	1000	4990	48	1820	195
27	109	95	116	210	551	286	238	929	3950	48	1570	204
28	85	93	114	270	490	292	226	886	3370	52	1400	200
29	84	93	107	300	---	293	205	968	2900	63	1220	181
30	80	93	95	270	---	299	188	1040	2290	51	1020	170
31	76	---	80	225	---	318	---	1230	---	52	920	---
TOTAL	2716	2502	3185	4805	14861	7490	8880	22297	131500	9934	21477	9751
MEAN	87.6	83.4	103	155	531	242	296	719	4383	320	693	325
MAX	139	115	128	330	1100	414	401	1380	7650	1720	2420	800
MIN	23	72	56	65	180	153	188	123	1530	48	34	170
AC-FT	5390	4960	6320	9530	29480	14860	17610	44230	260800	19700	42600	19340

CAL YR 1978 TOTAL 36184 MEAN 99.1 MAX 574 MIN 11 AC-FT 71770
WTR YR 1979 TOTAL 239398 MEAN 656 MAX 7650 MIN 23 AC-FT 474800

06764880 SOUTH PLATTE RIVER AT ROSCOE, NE

LOCATION.--Lat 41°07'33", long 101°34'35", in NW1/4SW1/4 sec.4, T.13 N., R.37 W., Keith County, Hydrologic Unit 10190018, at bridge on access road between U.S. Highway 30 and Interstate 80, about 0.5 miles southeast of Roscoe.

PERIOD OF RECORD.--July 1975 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (JTU) (00070)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT										
23...	1130	50	2150	7.4	7.0	15	13.4	7.4	1500	320
NOV										
29...	1115	80	2100	7.5	1.0	20	13.5	6.0	150	480
DEC										
27...	1100	86	2120	7.9	.0	10	12.5	2.2	550	300
JAN										
22...	1200	53	2210	7.4	.0	5	11.2	2.6	823	1040
FEB										
20...	1200	583	1930	7.6	.0	5	11.9	5.8	420	840
MAR										
27...	1200	280	2160	8.2	3.0	--	12.5	2.6	450	303
APR										
25...	1200	314	2100	8.1	13.0	5	11.2	1.6	180	37
MAY										
15...	1200	773	1750	8.1	16.0	20	10.6	8.0	360	920
JUN										
26...	1305	6220	990	7.9	25.0	110	7.1	2.9	440	3900
JUL										
23...	1115	88	1580	8.2	24.0	8	8.5	3.5	5300	K11
AUG										
28...	1200	1830	1630	8.1	23.5	110	9.8	6.1	970	1100
SEP										
24...	1115	227	1790	8.3	17.5	35	9.8	5.4	410	100

K Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)
OCT										
23...	92	1630	2.22	220	1.2	.14	1.3	1.4	2.6	.15
NOV										
29...	92	1620	2.20	350	1.9	.33	.87	1.2	3.1	.25
DEC										
27...	99	1710	2.33	397	2.2	.15	.75	.90	3.1	.21
JAN										
22...	140	1790	2.43	256	2.5	.49	.61	1.1	3.6	.28
FEB										
20...	83	1470	2.00	2310	3.1	.24	.65	.89	4.0	.26
MAR										
27...	93	1620	2.20	1220	1.3	.09	.51	.60	1.9	.09
APR										
25...	90	1640	2.23	1390	.58	.04	.52	.56	1.1	.05
MAY										
15...	63	1220	1.66	2550	1.2	.11	1.7	1.8	3.0	.14
JUN										
26...	35	699	.95	11700	.85	.03	1.4	1.4	2.3	.53
JUL										
23...	66	1160	1.58	276	.13	.05	.07	.12	.25	.12
AUG										
28...	69	1240	1.69	6130	2.3	.10	.08	.18	2.5	.55
SEP										
24...	78	1420	1.93	870	.61	.15	.37	.52	1.1	.14

06764880 SOUTH PLATTE RIVER AT ROSCOE, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	ALKALINITY (MG/L AS CACO3) (00410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)
NOV 29...	1115	760	540	210	57	190	3.0	17	220	830
FEB 20...	1200	710	480	190	58	180	2.9	16	230	740
MAY 15...	1200	560	380	140	51	150	2.8	14	180	600
AUG 28...	1200	570	340	140	53	160	2.9	12	230	580

DATE	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	PHOSPHORUS, DISSOLVED (MG/L AS P) (00666)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BARIUM, DISSOLVED (UG/L AS BA) (01005)	BORON, DISSOLVED (UG/L AS B) (01020)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)
NOV 29...	.7	24	1580	2.0	.25	3	0	280	--	0
FEB 20...	.8	19	1430	--	.24	--	--	290	--	--
MAY 15...	.8	12	1140	1.1	.03	4	100	340	0	20
AUG 28...	.9	21	1170	--	--	--	--	320	--	--

DATE	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, DISSOLVED (UG/L AS PB) (01049)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	MERCURY SUSPENDED RECOVERABLE (UG/L AS HG) (71895)	MERCURY DISSOLVED (UG/L AS HG) (71890)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	SILVER, DISSOLVED (UG/L AS AG) (01075)	ZINC, DISSOLVED (UG/L AS ZN) (01090)
NOV 29...	2	10	--	40	.0	--	.0	5	0	10
FEB 20...	--	60	--	10	--	--	--	--	--	--
MAY 15...	0	20	0	30	.2	.2	.0	3	0	20
AUG 28...	--	110	--	--	--	--	--	--	--	--

06765500 SOUTH PLATTE RIVER AT NORTH PLATTE, NE

LOCATION.--Lat 41°07'05", long 100°46'22", in NE1/4NE1/4 sec.8, T.13 N., R.30 W., Lincoln County, Hydrologic Unit 10190018, on left bank 0.5 mi (0.8 km) upstream from bridge on U.S. Highway 83, 0.7 mi (1.1 km) northwest of intersection of U.S. Highway 83 and Interstate 80 south of North Platte, and 5.5 mi (8.8 km) upstream from confluence with North Platte River.

DRAINAGE AREA.--24,300 mi^2 (62,900 km^2), approximately.

PERIOD OF RECORD.--June to November 1897, June to August 1914, May to September 1915, and May 1917 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1390: 1932-33, 1935.

GAGE.--Water-stage recorder. Datum of gage is 2,787.73 ft (849.700 m) National Geodetic Vertical Datum of 1929. See WSP 1918 for history of changes prior to Dec. 11, 1956. Dec. 11, 1956, to Mar. 29, 1973, at site 0.5 mi (0.8 km) downstream at same datum.

REMARKS.--Records fair except those for winter period or no gage height record, which are poor. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas. South Platte canal diverts around station; diversion began Nov. 13, 1946.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 37,100 ft^3/s (1,050 m^3/s) June 3, 1935, gage height, 14.02 ft (4.273 m), present datum; no flow at times in summers of most years prior to 1938.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,330 ft^3/s (208 m^3/s) June 17, gage height, 9.86 ft (3.005 m); minimum daily, 84 ft^3/s (2.38 m^3/s) Jan. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	136	113	130	120	106	300	179	148	224	1880	232	288
2	144	116	135	116	106	290	186	134	236	1320	244	264
3	146	116	130	112	106	290	172	137	244	964	248	244
4	147	114	125	108	110	262	148	148	236	726	229	225
5	149	110	125	104	110	216	154	154	275	577	211	204
6	130	110	125	100	110	204	186	162	756	510	190	200
7	107	110	120	96	120	224	165	148	1280	448	158	197
8	101	110	120	92	125	228	154	140	1550	404	167	197
9	102	111	125	84	130	220	151	144	1480	369	173	197
10	105	112	130	90	135	200	158	162	1340	356	167	197
11	106	110	135	90	140	193	186	176	1240	320	158	197
12	104	109	135	90	150	196	193	172	1310	284	164	190
13	104	109	135	100	155	182	182	165	1640	236	173	186
14	106	113	135	104	150	172	176	151	2390	186	183	186
15	105	116	135	110	150	168	176	151	3580	176	197	186
16	105	116	130	114	145	165	172	158	5540	197	200	193
17	107	113	125	116	145	162	168	162	7150	221	200	193
18	106	112	125	120	140	179	165	190	6840	225	204	173
19	106	112	120	125	150	186	162	186	5890	225	204	170
20	106	112	118	125	150	176	158	158	5790	221	204	146
21	106	116	127	125	160	200	162	168	6050	200	207	143
22	107	120	123	130	170	280	168	162	6210	176	207	143
23	109	123	131	140	179	300	165	172	6270	170	272	143
24	110	127	125	135	179	272	162	168	6370	183	514	143
25	112	130	122	130	258	258	154	158	6140	204	698	143
26	112	131	125	130	315	236	151	162	5340	164	900	143
27	111	136	125	125	352	224	144	158	4770	170	886	146
28	115	138	125	125	315	208	144	162	3840	290	719	146
29	117	134	120	120	---	193	144	182	2900	268	566	146
30	114	138	120	120	---	182	148	249	2240	244	439	146
31	111	---	120	110	---	176	---	244	---	244	342	---
TOTAL	3546	3537	3921	3506	4561	6742	4933	5131	98721	12158	9656	5475
MEAN	114	118	126	113	163	217	164	166	3291	392	311	183
MAX	149	138	135	140	352	300	193	249	7150	1880	900	288
MIN	101	109	118	84	106	162	144	134	224	164	158	143
AC-FT	7030	7020	7780	6950	9050	13370	9780	10180	195800	24120	19150	10860

CAL YR 1978 TOTAL 51124 MEAN 140 MAX 221 MIN 99 AC-FT 101400
WTR YR 1979 TOTAL 161887 MEAN 444 MAX 7150 MIN 84 AC-FT 321100

06766000 PLATTE RIVER AT BRADY, NE

LOCATION.--Lat 41°01'10", long 100°22'16" (north channel only), on two channels in secs.11 and 23, T.12 N., R.27 W., Lincoln County, Hydrologic Unit 10200101, on downstream side of highway bridges 0.5 mi (0.8 km) and 2.5 mi (4.0 km), respectively, south of Brady and 18 mi (29 km) downstream from confluence of North Platte and South Platte Rivers.

DRAINAGE AREA.--56,200 mi² (145,600 km²), approximately, of which about 51,400 mi² (133,100 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--May to September 1937, May 1938 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1390: 1941(M). WDR NE-67, WDR NE-76-1: Drainage area.

GAGE.--Two water-stage recorders. Datum of gage on north channel is 2,639.19 ft (804.425 m) and on south channel, 2,641.66 ft (805.178 m) National Geodetic Vertical Datum of 1929. No information available on gages operated by State engineer prior to Nov. 18, 1938. Nov. 18, 1938 to Sept. 30, 1942, gage on north channel at datum 1 ft (0.3 m) higher.

REMARKS.--Records good except those for winter period, which are fair. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas. Tri-County main supply canal, capacity, about 2,000 ft³/s (56.6 m³/s), diverts 18 mi (29 km) above station; diversion started Nov. 26, 1940. River flows in two channels for which separate records are computed; figures given herein represent combined discharge.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,600 ft³/s (527 m³/s) May 14, 1973; no flow Aug. 22-24, 1941.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,060 ft³/s (172 m³/s) June 25; minimum daily, 86 ft³/s (2.44 m³/s) Dec. 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	118	127	122	118	102	237	232	163	214	1950	367	150
2	122	155	86	114	102	251	229	164	190	1480	370	135
3	125	137	92	111	102	277	225	157	175	1050	298	125
4	109	147	106	109	102	275	220	159	165	866	261	118
5	121	136	110	107	102	282	209	153	156	733	228	117
6	111	133	111	104	100	338	192	156	153	751	227	112
7	130	131	109	101	100	346	190	163	196	641	436	115
8	122	146	102	99	104	337	185	172	249	445	519	125
9	116	128	106	96	108	317	178	199	311	314	640	115
10	112	149	110	93	110	291	188	205	257	280	774	111
11	109	126	116	93	118	275	249	199	241	239	994	125
12	152	127	120	93	127	256	271	192	215	201	1100	130
13	118	130	122	93	132	227	269	180	268	167	1140	128
14	149	142	126	94	137	225	250	171	575	209	1280	128
15	122	130	126	96	142	259	225	165	1200	475	1530	118
16	120	152	124	98	134	227	210	165	3050	738	1400	105
17	117	131	124	100	120	223	210	162	4840	967	1220	101
18	116	134	132	106	126	242	234	162	5600	951	1180	118
19	148	105	133	112	136	264	209	161	4920	809	1280	110
20	118	99	122	116	148	265	200	160	4580	712	1330	112
21	130	99	110	120	149	300	190	158	4740	745	1170	110
22	174	99	119	116	162	454	178	154	5100	802	1030	111
23	146	116	119	110	174	520	170	146	5400	805	732	112
24	138	126	129	116	182	383	173	142	5740	796	730	110
25	132	146	138	120	191	316	183	142	5970	823	679	109
26	147	150	135	116	203	284	171	144	5510	722	765	106
27	132	150	135	112	220	265	168	140	4560	846	785	102
28	145	149	132	110	231	247	162	128	3810	1990	644	101
29	136	150	130	108	---	241	159	130	2790	1900	433	99
30	130	150	126	106	---	228	158	260	2090	1140	298	99
31	127	---	122	102	---	221	---	232	---	659	168	---
TOTAL	3992	4000	3694	3289	3864	8873	6087	5184	73265	25206	24008	3457
MEAN	129	133	119	106	138	286	203	167	2442	813	774	115
MAX	174	155	138	120	231	520	271	260	5970	1990	1530	150
MIN	109	99	86	93	100	221	158	128	153	167	168	99
AC-FT	7920	7930	7330	6520	7660	17600	12070	10280	145300	50000	47620	6860

CAL YR 1978 TOTAL 124024 MEAN 340 MAX 2660 MIN 81 AC-FT 246000
WTR YR 1979 TOTAL 164919 MEAN 452 MAX 5970 MIN 86 AC-FT 327100

06766500 PLATTE RIVER NEAR COZAD, NE

LOCATION.--North Channel gage: Lat 40°50'08", long 99°59'13" in S1/2 sec.18, T.10 N., R.23 W., Dawson County, Hydrologic Unit 10200101, on left bank 30 ft (9 m) upstream from highway bridge, 1.5 mi (2.4 km) south of Cozad. South Channel gage: Lat 40°49'47", long 99°59'18" in S1/2 sec.18, T.10 N., R.23 W., Dawson County, on downstream side of highway bridge, 1.5 mi (2.4 km) south of Cozad. Prior to June 16, north channel gage on downstream side of highway bridge 30 ft (9 m) downstream.

DRAINAGE AREA.--56,500 mi² (146,300 km²), approximately, of which about 51,700 mi² (133,900 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--July to September 1932, May 1937 to current year (prior to April 1939, irrigation seasons only). Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WDR NE-67, WDR NE-76-1: Drainage area.

GAGE.--Two water-stage recorders. Datum of gage on south channel is 2,473.07 ft (753.792 m) and on north channel, 2,475.72 ft (754.599 m) National Geodetic Vertical Datum of 1929 (Nebraska Department of Roads bench mark). May 11, 1976 to June 16, 1977, north channel gage on downstream side of highway bridge 30 ft (9 m) downstream at same datum. See WSP 2118 for history of changes prior to May 10, 1966. May 10, 1966 to May 10, 1976 at datum 1.0 ft (0.30 m) higher.

REMARKS.--Records good except those for winter period and periods of backwater from beaver dams, which are fair. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas. River flows in two channels for which separate records are computed; figures given herein represent combined discharge.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,400 ft³/s (521 m³/s) May 29, 1973; no flow at times in 1937-40.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,970 ft³/s (169 m³/s) June 26; minimum daily, 28 ft³/s (0.79 m³/s) June 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	145	221	205	184	152	396	332	280	46	1860	157	46
2	151	224	160	170	147	426	325	273	36	1590	89	45
3	151	228	159	160	143	417	322	240	35	1150	59	41
4	170	230	159	150	138	356	325	212	31	724	53	39
5	185	230	159	140	132	377	319	184	30	632	50	38
6	200	226	154	140	128	450	304	205	30	564	50	37
7	200	224	154	140	127	510	301	198	28	504	49	36
8	201	224	149	140	142	537	286	185	32	393	47	52
9	194	228	149	145	152	541	280	196	42	249	49	88
10	185	228	159	145	172	587	283	196	34	161	44	161
11	185	228	179	145	182	579	365	199	52	102	43	139
12	185	231	198	145	192	474	405	179	65	52	43	74
13	190	226	219	150	202	438	415	177	106	44	42	70
14	187	226	214	150	222	410	410	165	99	39	53	99
15	187	232	214	150	212	418	384	155	222	49	106	108
16	183	237	204	150	202	440	363	151	767	85	100	86
17	183	239	204	150	202	420	354	116	2020	72	108	71
18	183	235	205	155	211	423	405	81	4330	158	118	58
19	181	215	211	155	251	443	398	72	4910	200	119	55
20	201	166	214	155	261	446	375	65	4590	140	144	41
21	198	175	214	160	263	473	356	63	4210	93	192	41
22	225	188	202	160	294	661	334	46	4420	83	122	40
23	248	184	204	165	306	772	321	37	4940	86	67	40
24	243	202	206	165	303	743	282	35	5380	98	47	86
25	238	215	191	170	310	617	300	34	5760	92	46	159
26	230	216	208	170	335	527	305	35	5800	86	57	222
27	230	215	203	170	387	491	290	34	5030	228	82	205
28	227	205	193	171	398	425	280	35	4620	605	80	172
29	229	204	199	166	---	391	286	31	3330	1470	72	137
30	231	209	209	162	---	369	283	58	2270	1200	72	127
31	225	---	209	157	---	346	---	64	---	513	49	---
TOTAL	6171	6511	5907	4835	6166	14903	9988	4001	63265	13322	2409	2613
MEAN	199	217	191	156	220	481	333	129	2109	430	77.7	87.1
MAX	248	239	219	184	398	772	415	280	5800	1860	192	222
MIN	145	166	149	140	127	346	280	31	28	39	42	36
AC-FT	12240	12910	11720	9590	12230	29560	19810	7940	125500	26420	4780	5180

CAL YR 1978 TOTAL 75759 MEAN 208 MAX 1440 MIN 24 AC-FT 150300
WTR YR 1979 TOTAL 140091 MEAN 384 MAX 5800 MIN 28 AC-FT 277900

06768000 PLATTE RIVER NEAR OVERTON, NE

LOCATION.--Lat 40°40'57", long 99°32'19", in NW1/4NE1/4 sec.12, T.8 N., R.20 W., Dawson County, Hydrologic Unit 10200101, on left bank 600 ft (183 m) downstream from county highway bridge, 4 mi (6 km) south of Overton and 4 mi (6 km) downstream from Plum Creek.

DRAINAGE AREA.--57,700 mi² (149,400 km²), approximately, of which about 52,900 mi² (137,000 km²) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July to September 1914 (gage heights only), October 1914 to current year. Monthly discharge only for some periods, published in WSP 1310. Published as "near Elm Creek" 1914-15.

REVISED RECORDS.--WDR NE-67, WDR NE-76-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,298.83 ft (700.683 m) National Geodetic Vertical Datum of 1929. July 1914 to October 1917 nonrecording gages at site 8 mi (13 km) downstream at different datum. June 1918 to Sept. 12, 1928, nonrecording gage at site 600 ft (180 m) upstream (south channel only) at datum 3.0 ft (0.91 m) higher. Sept. 13, 1928, to Sept. 30, 1930, nonrecording gage and Oct. 1, 1930, to Sept. 30, 1968, water-stage recorder, at site 600 ft (180 m) upstream (south channel only) at datum 1.0 ft (0.30 m) higher. Oct. 1, 1968 to Feb. 3, 1976 water-stage recorder on south channel at site 600 ft (180 m) upstream at datum 1.0 ft (0.30 m) higher, and Feb. 4 to June 2, 1976 (south channel gage discontinued) at present datum. Oct. 1, 1966, to July 10, 1974, north channel gage at site 600 ft (180 m) upstream at datum 1.0 ft (0.30 m) higher and July 11, 1974 to June 1, 1976 at same datum.

REMARKS.--Records fair. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 37,600 ft³/s (1,060 m³/s) June 5, 1935, gage height, 6.25 ft (1.905 m) south channel; maximum gage height, 6.43 ft (1.960 m) May 15, 1973, north channel, datum then in use; no flow at times in 1919, 1922, 1925, 1927-28, 1930-41.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,580 ft³/s (215 m³/s) June 28, gage height, 3.97 ft (1.210 m); minimum daily discharge, 192 ft³/s (5.44 m³/s) Sept. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	590	1180	1270	960	900	1890	1180	820	482	4040	1450	382
2	921	1100	1200	960	900	1940	1200	972	528	3500	714	410
3	921	1060	1160	960	900	2220	1080	921	436	3300	553	418
4	853	972	1120	960	900	1940	1160	921	565	2950	459	334
5	804	1010	1100	940	800	1990	955	853	482	2900	384	238
6	820	1030	1060	900	800	2040	990	887	384	2870	325	217
7	836	1060	1000	900	800	2330	887	836	459	2680	291	192
8	887	990	980	900	800	2190	904	972	565	2300	265	285
9	820	972	940	900	800	2190	990	955	1250	2010	240	463
10	493	904	1000	900	800	2220	1030	955	1450	1560	233	324
11	965	972	1100	940	840	2280	1160	938	1410	972	233	308
12	804	938	1120	940	860	2140	1180	955	1540	604	233	386
13	1240	990	1100	960	900	1750	1180	887	1430	405	226	657
14	1030	1030	1010	980	900	1450	1180	921	1330	345	248	887
15	1080	1050	1290	1000	1000	1390	1060	870	1030	384	248	913
16	1140	972	1370	1000	1200	1410	1140	744	1270	384	299	890
17	1160	1060	1350	1000	1200	1390	1180	789	1890	459	325	846
18	1270	1080	1290	1000	1250	1350	1220	759	2640	578	425	805
19	1100	1030	1450	980	1250	1260	1470	714	4340	774	422	788
20	955	1060	1270	980	1250	1350	1270	685	5230	853	427	725
21	972	1100	1290	980	1250	1330	1430	643	5190	528	447	663
22	990	1160	1220	980	1300	1560	1250	578	5000	354	449	663
23	1050	1250	1200	980	1300	1920	1290	482	5350	308	387	664
24	1010	1250	1330	960	1300	2460	1240	482	5760	470	350	657
25	1030	1290	1140	960	1400	2490	1120	459	6430	528	329	729
26	1030	1140	1100	960	1500	2060	1120	591	6710	459	437	876
27	1050	1140	1000	960	1750	1720	990	335	7280	470	685	964
28	1050	1250	960	960	2060	1450	972	374	7120	948	826	958
29	1100	1240	960	960	---	1350	887	384	6070	2140	645	866
30	1140	1310	960	960	---	1240	904	436	4860	2190	596	663
31	1140	---	960	960	---	1180	---	436	---	2460	443	---
TOTAL	30251	32590	35300	29660	30910	55480	33619	22554	88681	44723	13594	18171
MEAN	976	1086	1139	957	1104	1790	1121	728	2956	1443	439	606
MAX	1270	1310	1450	1000	2060	2490	1470	972	7280	4040	1450	964
MIN	493	904	940	900	800	1180	887	335	384	308	226	192
AC-FT	60000	64640	70020	58830	61310	110000	66680	44740	175900	88710	26960	36040

CAL YR 1978 TOTAL 328954 MEAN 901 MAX 3020 MIN 82 AC-FT 652500
WTR YR 1979 TOTAL 435533 MEAN 1193 MAX 7280 MIN 192 AC-FT 863900

06768000 PLATTE RIVER NEAR OVERTON, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1952, 1958 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: January 1958 to current year.
WATER TEMPERATURES: January 1958 to current year.

INSTRUMENTATION.-- Temperature recorder from Apr. 5, 1967 to Aug. 2, 1976; Mar. 21, 1978 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 1,480 micromhos May 15, 1966 (south chan.); minimum daily, 214 micromhos July 23, 1968 (south chan.).
WATER TEMPERATURES: Maximum, 37.0°C June 13, 1959 (south chan.), July 9, 1960 (north chan.); minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 1,140 micromhos June 17 (north chan.); minimum daily, 209 micromhos Oct. 1 (south chan.)
WATER TEMPERATURES: Maximum daily, 32.0°C June 13; minimum daily, 0.0°C on many days during winter period.

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (JTU) (00070)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT										
24...	1215	700	--	8.0	9.0	10	11.2	2.4	--	920
NOV										
21...	1200	1010	--	7.9	.0	4	13.1	2.5	--	340
DEC										
19...	1030	770	834	7.3	1.0	10	12.7	2.0	5000	500
JAN										
16...	1045	800	901	7.8	.0	8	10.6	2.4	K16000	K40000
FEB										
27...	1045	770	780	8.0	.5	15	12.5	4.4	33000	60000
MAR										
29...	0945	860	800	8.2	7.0	10	10.6	2.4	K9200	3300
APR										
25...	1030	770	800	8.2	12.0	10	9.8	2.6	28000	700
MAY										
22...	1015	450	950	8.2	16.0	6	9.4	2.7	>100000	1600
JUN										
19...	0930	3300	1000	7.9	19.5	15	7.3	1.5	K18000	1600
JUL										
17...	1030	460	900	8.2	19.5	25	9.2	2.4	K190000	1100
AUG										
29...	1315	500	940	8.3	25.0	15	8.7	4.2	180	140
SEP										
25...	1015	550	940	8.2	16.0	--	10.4	2.4	4000	310

K Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)
OCT										
24...	25	541	.74	1020	.88	.04	.68	.72	1.6	.13
NOV										
21...	26	629	.86	1720	1.5	.20	.46	.66	2.2	.16
DEC										
19...	22	564	.77	1170	--	.01	.38	.39	--	.11
JAN										
16...	30	--	.79	1260	1.7	.39	3.4	3.8	5.5	.17
FEB										
27...	20	485	.66	1010	1.5	.42	.78	1.2	2.7	.32
MAR										
29...	23	--	.71	1210	1.4	.01	.28	.29	1.7	.10
APR										
25...	23	561	.76	1170	1.0	.01	.45	.46	1.5	.11
MAY										
22...	27	636	.87	773	1.4	.04	.44	.48	1.9	.18
JUN										
19...	31	671	.91	5980	.34	.05	1.2	1.2	1.5	.11
JUL										
17...	30	--	.82	749	.53	.00	1.0	1.0	1.5	.26
AUG										
29...	32	659	.90	890	1.0	.05	.45	.50	1.5	.03
SEP										
25...	33	678	.92	1010	1.0	.04	.62	.66	1.7	.20

06768000 PLATTE RIVER NEAR OVERTON, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	COLOR (PLAT- INUM- COBALT UNITS) (00080)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L CACO3) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LINITY (MG/L AS CACO3) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)
OCT 24...	1215	--	270	61	74	21	68	1.8	14	210	200
DEC 19...	1030	--	290	65	78	22	70	1.8	14	220	190
JAN 16...	1045	--	310	76	88	21	64	1.6	14	230	190
MAR 29...	0945	--	280	59	77	21	60	1.6	14	220	160
APR 25...	1030	--	260	46	68	21	63	1.7	14	210	170
JUN 19...	0930	--	370	190	100	28	81	1.8	15	180	310
JUL 17...	1030	--	270	92	71	23	74	2.0	15	180	250
SEP 25...	1015	5	340	120	91	27	92	2.2	14	220	270

DATE	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00666)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)
OCT 24...	.5	34	--	.91	.07	4	90	160	--	0
DEC 19...	.5	40	576	1.6	.12	5	90	130	<1	0
JAN 16...	.5	37	583	--	.15	--	--	130	--	--
MAR 29...	.5	35	523	--	.10	--	--	140	--	--
APR 25...	.6	35	526	1.1	.09	6	100	150	--	0
JUN 19...	.7	24	700	.34	.08	4	100	170	--	0
JUL 17...	.6	31	603	--	.06	--	--	120	--	--
SEP 25...	.6	34	698	1.0	.15	--	--	140	--	--

DATE	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MERCURY SUS- PENDED RECOV- ERABLE (UG/L AS HG) (71895)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)
OCT 24...	6	<10	--	6	--	--	.0	2	0	3
DEC 19...	2	10	4	10	.0	--	.1	2	0	5
JAN 16...	--	10	--	30	--	--	--	--	--	--
MAR 29...	--	60	--	20	--	--	--	--	--	--
APR 25...	0	20	--	9	1.0	1.0	.0	2	0	20
JUN 19...	1	10	--	10	.0	.0	.0	3	0	10
JUL 17...	--	30	--	50	--	--	--	--	--	--
SEP 25...	--	<10	--	20	--	--	--	--	--	--

06768000 PLATTE RIVER NEAR OVERTON, NE--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	22.0	11.5	13.0	7.0	3.0	.0	.0	.0	.0	.0	.5	.5
2	19.5	14.0	14.5	9.0	.0	.0	.0	.0	.0	.0	2.0	.5
3	18.5	13.0	14.0	9.5	.0	.0	.0	.0	.0	.0	.5	.0
4	16.5	9.5	14.0	9.0	.5	.0	.0	.0	.0	.0	2.0	.0
5	15.5	8.0	12.0	8.0	.5	.0	.0	.0	.0	.0	4.5	.5
6	16.0	6.5	10.5	6.5	.5	.0	.0	.0	.0	.0	5.0	1.0
7	16.0	8.0	10.0	8.0	.0	.0	.0	.0	.0	.0	5.5	1.0
8	18.5	9.0	11.0	6.5	.0	.0	.0	.0	.0	.0	5.0	3.0
9	19.0	11.5	12.0	6.5	.0	.0	.0	.0	.0	.0	6.0	3.0
10	18.5	14.0	9.5	3.5	.0	.0	.0	.0	.0	.0	5.5	1.0
11	18.0	11.0	3.5	1.0	.0	.0	.0	.0	.0	.0	8.0	2.0
12	16.5	11.0	4.0	1.0	.0	.0	.0	.0	.0	.0	10.5	4.0
13	14.5	8.0	6.5	3.0	.0	.0	.0	.0	.0	.0	9.5	5.5
14	13.5	6.0	3.5	2.0	.0	.0	.0	.0	.0	.0	9.5	3.5
15	15.0	6.5	4.0	1.5	.0	.0	.0	.0	.0	.0	8.5	3.0
16	14.0	6.5	4.0	3.0	.0	.0	.0	.0	.0	.0	5.5	4.5
17	13.5	9.5	5.5	1.5	.0	.0	.0	.0	.0	.0	11.0	5.0
18	14.0	8.5	5.0	.0	.0	.0	.0	.0	.0	.0	10.5	5.5
19	15.5	7.0	.0	.0	.0	.0	.0	.0	.0	.0	8.0	4.0
20	16.0	9.5	.0	.0	.0	.0	.0	.0	.0	.0	9.5	3.5
21	19.5	11.0	.0	.0	.0	.0	.0	.0	.0	.0	8.0	5.5
22	13.0	6.5	.0	.0	.0	.0	.0	.0	.0	.0	5.5	3.0
23	11.0	5.0	.5	.0	.0	.0	.0	.0	.0	.0	5.0	2.0
24	13.5	9.0	2.0	.0	.0	.0	.0	.0	.0	.0	7.0	1.5
25	12.0	8.0	2.0	.0	.0	.0	.0	.0	.0	.0	10.0	4.0
26	11.0	5.5	.0	.0	.0	.0	.0	.0	.5	.0	9.0	5.0
27	12.0	6.0	1.5	.0	.0	.0	.0	.0	.5	.5	6.0	4.5
28	12.0	6.0	2.0	.5	.0	.0	.0	.0	.5	.5	11.5	4.5
29	13.5	8.0	4.0	.5	.0	.0	.0	.0	---	---	13.5	7.0
30	12.0	9.5	4.5	1.0	.0	.0	.0	.0	---	---	10.5	6.5
31	11.5	9.0	---	---	.0	.0	.0	.0	---	---	8.0	5.5
MONTH	22.0	5.0	14.5	.0	3.0	.0	.0	.0	.5	.0	13.5	.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	6.0	4.5	13.0	10.0	25.0	17.0	20.0	19.0	28.0	22.0	29.0	22.0
2	6.0	3.5	14.5	10.0	28.0	14.5	19.5	19.0	28.0	22.0	29.0	20.0
3	5.0	3.0	14.0	8.5	28.5	15.5	20.5	19.0	28.5	22.0	29.0	20.5
4	10.0	3.5	19.0	8.5	30.0	16.5	20.0	19.5	29.5	21.0	29.0	21.0
5	13.0	6.0	20.0	10.0	30.0	16.5	20.0	19.0	30.0	21.5	30.0	21.0
6	10.5	4.5	24.5	14.0	30.5	17.0	19.0	19.0	29.5	22.0	28.0	21.0
7	13.5	5.0	24.0	14.5	26.0	16.5	19.5	19.0	31.5	22.0	28.0	19.0
8	14.0	9.0	19.0	10.5	16.5	13.5	20.0	19.0	31.5	24.5	28.0	18.5
9	14.5	7.0	10.5	7.0	14.5	12.0	20.0	19.5	30.0	24.5	26.5	19.5
10	10.0	6.0	10.0	6.0	25.5	10.0	20.5	19.5	26.5	23.5	26.5	20.0
11	8.5	6.0	17.0	5.5	28.0	15.5	21.0	19.5	29.0	21.0	22.0	19.0
12	8.0	5.0	20.0	11.0	30.5	17.0	21.0	19.5	27.0	21.5	19.0	16.0
13	12.0	4.0	21.5	11.5	32.0	20.0	23.5	20.0	27.0	23.0	21.5	13.5
14	16.0	8.5	21.5	13.5	29.5	19.5	24.5	20.0	24.0	19.5	23.0	16.0
15	18.5	10.5	21.0	16.5	28.5	20.0	23.0	21.0	20.0	18.5	23.5	14.5
16	20.5	12.0	24.5	13.5	30.0	21.0	22.0	20.0	23.5	18.5	23.5	15.5
17	20.0	14.0	23.5	14.0	23.5	18.5	22.0	19.5	28.5	21.0	24.5	15.5
18	19.0	14.5	17.0	14.0	20.5	18.0	22.0	20.0	28.5	24.0	24.5	16.5
19	21.5	14.0	18.5	12.0	20.0	18.5	22.0	20.0	29.0	24.0	24.5	15.5
20	19.0	13.5	18.0	14.0	23.0	17.0	22.0	20.0	29.5	24.0	23.5	15.5
21	19.5	12.0	23.5	11.5	25.5	19.5	22.0	20.5	26.5	25.0	23.0	14.5
22	19.5	12.0	25.5	14.0	23.0	20.5	23.5	20.5	28.5	21.5	23.0	13.5
23	19.5	12.0	23.0	14.5	23.5	20.0	23.5	20.5	26.0	21.5	25.0	15.5
24	18.5	14.0	25.0	12.0	22.0	19.5	24.5	21.0	26.0	21.0	24.0	15.5
25	15.5	11.0	24.0	13.5	25.0	19.5	23.5	21.0	24.5	21.0	23.5	16.0
26	16.0	9.5	26.5	14.5	26.5	21.0	25.0	20.5	26.0	19.5	23.0	16.5
27	14.5	10.0	26.5	14.5	26.0	22.0	24.5	21.5	24.0	20.5	23.0	18.0
28	14.0	9.0	26.5	13.5	25.0	22.0	25.0	23.0	27.0	19.5	23.5	16.0
29	16.5	8.5	26.5	14.5	24.0	20.5	24.5	22.0	28.0	21.0	23.0	17.0
30	15.5	10.0	23.5	15.0	20.5	19.5	27.0	23.5	29.0	21.5	24.5	16.0
31	---	---	18.5	13.5	---	---	26.5	23.5	29.0	21.5	---	---
MONTH	21.5	3.0	26.5	5.5	32.0	10.0	27.0	19.0	31.5	18.5	30.0	13.5

06767998 PLATTE RIVER NEAR OVERTON, NE (NORTH CHANNEL)

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	750	810	788	895	818	688	793	790	908	907	840	995
2	750	800	785	895	812	710	790	760	920	945	880	985
3	760	812	787	778	823	730	788	787	935	940	925	985
4	840	796	869	779	812	706	789	818	928	928	943	983
5	839	798	858	775	809	708	790	830	935	850	945	978
6	829	771	850	756	811	710	800	865	938	885	967	970
7	826	777	759	756	807	688	803	831	926	913	945	970
8	820	783	867	745	803	678	805	810	855	908	942	958
9	817	799	899	758	799	684	790	798	856	902	925	945
10	829	815	895	767	812	689	775	784	902	933	974	958
11	828	818	850	779	803	700	785	815	933	938	954	887
12	830	810	850	776	790	708	795	839	946	925	983	879
13	830	806	835	778	783	749	791	836	946	938	975	950
14	823	808	813	775	778	795	788	833	923	938	937	963
15	818	790	859	776	781	796	792	841	961	872	956	960
16	818	797	845	776	773	797	795	850	897	935	932	960
17	815	791	848	779	777	752	798	818	1140	925	934	975
18	828	788	819	845	769	718	802	779	1130	958	878	930
19	825	803	812	846	782	725	794	880	995	949	905	980
20	825	800	795	841	774	727	785	895	1110	950	918	988
21	818	796	810	787	766	711	795	904	1130	948	882	988
22	785	793	808	805	759	695	802	912	1130	970	875	993
23	788	780	830	870	763	725	808	914	998	969	878	988
24	778	791	847	793	771	745	813	920	977	956	920	983
25	790	793	829	853	778	759	800	909	932	900	915	970
26	804	777	823	825	799	768	799	902	933	925	923	930
27	815	781	865	827	780	773	797	882	934	925	947	915
28	860	790	849	874	736	778	795	887	922	845	950	908
29	810	781	828	868	---	800	805	892	980	759	955	915
30	809	785	895	843	---	776	815	863	996	662	970	920
31	805	---	877	822	---	784	---	875	---	758	985	---

06767999 PLATTE RIVER NEAR OVERTON, NE (SOUTH CHANNEL)

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	289	783	728	762	820	733	746	731	874	990	825	899
2	825	754	710	762	811	740	748	720	873	979	855	909
3	780	778	695	759	813	744	753	712	887	998	895	904
4	758	745	698	743	815	748	758	726	890	964	925	919
5	755	762	684	748	807	747	760	748	896	879	915	895
6	750	698	687	751	801	740	763	749	898	872	885	870
7	754	708	828	757	795	735	765	750	898	935	863	865
8	768	737	719	762	800	752	771	764	897	985	849	851
9	775	782	585	771	778	770	777	785	889	985	885	906
10	788	759	709	768	815	770	769	780	906	955	868	922
11	805	798	709	795	775	770	760	779	918	959	822	918
12	780	781	687	795	795	785	771	785	920	969	900	916
13	770	775	687	783	773	721	789	792	921	960	815	923
14	768	780	678	788	768	752	787	787	926	989	887	923
15	772	751	668	785	800	785	784	785	918	880	870	922
16	770	769	698	801	800	762	753	794	946	969	859	916
17	750	758	699	818	795	740	729	802	959	978	843	916
18	770	754	707	825	805	760	731	820	945	999	830	910
19	775	775	706	837	810	778	733	839	960	1010	765	922
20	780	769	725	831	815	755	748	881	979	998	757	921
21	748	766	699	785	795	732	760	883	987	970	735	921
22	770	769	685	785	735	707	767	882	989	946	727	922
23	775	787	675	788	763	688	777	880	988	944	735	915
24	742	759	693	793	736	723	759	885	965	958	888	923
25	768	747	677	805	656	755	740	850	921	939	888	911
26	750	752	687	835	763	752	745	860	978	863	880	905
27	749	768	698	884	614	750	750	865	957	865	908	919
28	768	747	692	787	608	748	768	871	979	739	904	911
29	770	773	675	815	---	745	795	863	957	870	910	903
30	772	765	718	823	---	745	749	855	989	905	907	911
31	745	---	722	817	---	745	---	868	---	985	906	---

06770000 PLATTE RIVER NEAR ODESSA, NE

LOCATION.--Lat 40°39'55", long 99°15'20", in E1/2 sec.16, T.8 N., R.17 W., Buffalo-Phelps County line, Hydrologic Unit 10200101, near right bank on downstream side of pier of highway bridge, 2.5 mi (4.0 km) south of Odessa and 5 mi (8 km) downstream from Elm Creek.

DRAINAGE AREA.--58,100 mi² (150,500 km²), approximately, of which about 53,300 mi² (138,000 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--March 1937 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WDR NE-67, WDR NE-76-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,197.07 ft (669.667 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 7, 1938, nonrecording gage and Oct. 7, 1938, to Sept. 30, 1942, water-stage recorder, at present site at datum 1.00 ft (0.305 m) higher.

REMARKS.--Records good except those for winter period, which are poor. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 22,700 ft³/s (643 m³/s) June 24, 1947, gage height, 5.52 ft (1.682 m); maximum gage height, 5.89 ft (1.795 m) Mar. 5, 1952, backwater from ice; no flow for periods in each year prior to 1947 and in 1953-57, 1963.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,110 ft³/s (201 m³/s) June 27, gage height, 3.74 ft (1.140 m); maximum gage height, 4.99 ft (1.521 m) Mar. 4, ice jam; minimum daily discharge, 30 ft³/s (0.85 m³/s) Aug. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	414	636	1090	980	920	2000	1360	886	130	4030	1820	318
2	402	664	1060	980	900	2100	1430	1260	146	3230	762	250
3	426	720	1000	980	880	2200	1220	1110	122	2910	462	240
4	438	806	980	980	860	2300	1200	870	114	2640	138	146
5	426	790	980	980	840	2400	1190	762	162	2580	154	106
6	366	720	940	980	820	2500	1170	720	98	2880	170	98
7	390	664	800	980	800	2700	1110	706	42	2640	146	114
8	450	664	720	980	780	2860	1150	664	154	2210	30	260
9	594	706	860	980	760	2450	1170	678	414	2020	60	270
10	330	760	1060	1000	800	2180	1240	918	886	1560	60	170
11	402	720	1300	1000	860	2160	1430	762	902	1220	78	98
12	270	700	1400	1020	900	2090	1540	678	918	538	122	154
13	650	700	1450	1040	1000	2020	1360	622	934	230	130	294
14	654	706	1350	1060	1100	1400	1380	692	854	122	210	462
15	700	692	1300	1080	1200	1320	1300	664	720	260	282	486
16	640	678	1300	1100	1300	1360	1300	566	664	330	282	486
17	660	720	1250	1120	1350	1450	1220	498	1300	426	282	462
18	678	854	1250	1120	1350	1540	1110	650	2000	462	306	438
19	706	860	1250	1120	1400	1540	1060	510	3480	486	294	414
20	594	860	1250	1100	1400	1450	1560	450	4780	580	240	378
21	608	854	1250	1100	1400	1600	1170	390	5090	426	250	354
22	706	998	1250	1100	1450	2500	1200	354	4890	282	240	318
23	734	966	1250	1080	1450	2560	1170	354	4970	240	210	294
24	734	918	1200	1060	1450	2500	1090	294	5130	260	170	318
25	734	998	1100	1040	1500	2450	1190	270	5750	330	130	306
26	720	1080	1060	1020	1700	2160	950	260	5900	282	138	414
27	706	958	1040	1000	1900	1900	806	318	6880	294	350	474
28	650	886	1020	1000	2000	1470	822	230	6640	450	587	510
29	608	966	1000	980	---	1410	886	170	5750	1410	486	510
30	560	998	1000	960	---	1360	870	282	4710	2230	486	333
31	560	---	980	940	---	1280	---	200	---	2580	402	---
TOTAL	17750	24282	34740	31860	33070	61210	35654	17788	74530	40138	9477	9475
MEAN	573	809	1121	1028	1181	1975	1188	574	2484	1295	306	316
MAX	654	1080	1450	1120	2000	2860	1560	1260	6880	4030	1820	510
MIN	270	636	720	940	760	1280	806	170	42	122	30	98
AC-FT	35210	48160	68910	63190	65590	121400	70720	35280	147800	79610	18800	18790

CAL YR 1978 TOTAL 284479.0 MEAN 779 MAX 3500 MIN 2.0 AC-FT 564300
WTR YR 1979 TOTAL 389974.0 MEAN 1068 MAX 6880 MIN 30 AC-FT 773500

06770500 PLATTE RIVER NEAR GRAND ISLAND, NE

LOCATION.--Lat 40°52'28", long 98°16'54", in SW1/4SW1/4 sec.31, T.11 N., R.8 W., Merrick County, Hydrologic Unit 10200101, on left bank 118 ft (36 m) downstream from bridge on U.S. Highway 34, 2 mi (3 km) upstream from Burlington Northern Inc. bridge, and 5 mi (8 km) southeast of Grand Island.

DRAINAGE AREA.--58,800 mi² (152,300 km²), approximately, of which about 54,000 mi² (139,900 km²) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1933 to current year.

REVISED RECORDS.--WSP 956: 1935. WSP 1390: 1942. WDR NE-76-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,831.89 ft (558.360 m) National Geodetic Vertical Datum of 1929 (Nebraska Department of Highways bench mark). Prior to Oct. 23, 1933, nonrecording gage at bridge 30 ft (9 m) upstream at present datum.

REMARKS.--Records good except those for winter period, which are poor. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 30,000 ft³/s (850 m³/s) June 6, 1935, gage height, 5.99 ft (1.826 m), from rating curve extended above 18,000 ft³/s (510 m³/s); maximum gage height, 6.16 ft (1.878 m) Mar. 27, 1960, backwater from ice; no flow at times in many years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,010 ft³/s (170 m³/s) June 29, gage height, 3.60 ft (1.097 m); maximum gage height, 5.61 ft (1.710 m) Mar. 8, backwater from ice; minimum daily discharge, 90 ft³/s (2.55 m³/s) Aug. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	520	646	1300	720	740	1400	1780	1400	493	5180	1730	474
2	543	667	400	740	720	1500	1850	2260	483	4400	1700	482
3	532	682	250	780	780	1600	1850	2320	447	3640	1050	433
4	523	686	270	740	740	1750	1830	2040	405	3100	700	380
5	506	672	350	660	820	1950	1690	1680	381	3290	606	330
6	517	626	450	700	860	2200	1620	1440	345	3090	507	260
7	517	615	600	660	760	2500	1580	1290	329	3030	378	291
8	495	612	800	700	700	2900	1570	1210	326	2850	170	280
9	512	623	940	650	740	3300	1530	1310	390	2560	170	263
10	521	657	1060	620	760	3800	1610	2040	532	2270	180	190
11	520	622	1140	660	760	4000	1960	2030	637	2000	130	150
12	480	656	1250	660	760	3700	2090	1720	904	1650	90	234
13	394	686	1250	640	800	3300	2010	1450	956	1240	130	251
14	345	712	1250	620	860	3100	1960	1270	1000	978	189	262
15	416	755	1250	680	800	3000	1860	1180	994	813	267	262
16	559	792	1220	740	740	2700	1760	1120	980	754	283	282
17	603	770	1200	760	800	2120	1700	1020	916	829	280	346
18	650	754	1250	840	900	2190	1560	990	978	818	257	405
19	628	720	1250	960	940	2380	1590	1000	1320	836	240	442
20	652	410	1160	1000	900	2070	2050	989	1810	815	210	454
21	692	420	1250	1160	860	1910	2200	911	3000	781	210	430
22	768	520	1200	1250	920	3830	1720	864	3900	866	230	418
23	760	660	1100	1140	980	4680	1590	863	4330	734	250	393
24	783	800	900	1060	1140	3720	1420	765	4520	602	293	368
25	738	1000	1060	1200	1250	3280	1540	711	4340	450	291	356
26	722	1350	1020	1100	1300	3180	1780	685	4730	350	334	346
27	710	1500	1100	1000	1400	2900	1620	654	5130	270	335	346
28	696	1600	1160	920	1350	2550	1500	615	5370	300	335	346
29	665	1500	1000	840	---	2190	1510	596	5950	350	335	346
30	669	1400	900	760	---	1920	1450	557	5770	652	371	368
31	645	---	820	700	---	1760	---	512	---	1320	427	393
TOTAL	18341	24113	30150	25660	25080	83380	51780	37492	61666	50818	12678	10235
MEAN	592	804	973	828	896	2690	1726	1209	2056	1639	409	341
MAX	783	1600	1300	1250	1400	4680	2200	2320	5950	5180	1730	482
MIN	345	410	250	620	700	1400	1420	512	326	270	90	150
AC-FT	36380	47830	59800	50900	49750	165400	102700	74370	122300	100800	25150	20300

CAL YR 1978 TOTAL 343108.10 MEAN 940 MAX 10500 MIN .03 AC-FT 680600
WTR YR 1979 TOTAL 431393.00 MEAN 1182 MAX 5950 MIN 90 AC-FT 855700

06770500 PLATTE RIVER NEAR GRAND ISLAND, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water year 1972 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: July 1972 to current year.
WATER TEMPERATURES: July 1972 to current year.

EXTREMES FOR PERIOD OF RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 1,050 micromhos Jan. 12, 1973; minimum daily, 575 micromhos May 24, 1977.
WATER TEMPERATURES: Maximum, 34.5°C July 23, 1972; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 986 micromhos June 21; minimum daily, 705 micromhos Feb. 12.
WATER TEMPERATURES: Maximum, 26.5°C June 27; minimum, 1.0°C on several days during winter period.

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	COLOR (PLAT-INUM-COBALT UNITS) (00080)	TUR-BID-ITY (JTU) (00070)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT											
03...	1145	539	808	8.3	15.5	--	10	11.3	9.0	K190	220
NOV											
16...	1000	792	799	8.2	2.0	--	8	15.4	5.5	430	380
DEC											
26...	1240	922	821	7.8	.5	--	3	14.0	7.2	870	K48
JAN											
17...	1000	764	879	7.6	.5	7	4	9.0	2.5	200	92
FEB											
07...	1155	736	833	7.5	.5	--	3	9.2	14	120	100
MAR											
21...	0950	1770	805	8.2	8.0	--	10	11.3	1.3	430	540
APR											
12...	0915	2050	763	8.2	7.0	--	10	11.6	5.2	440	2300
MAY											
24...	1020	746	868	8.1	17.0	--	10	10.1	1.8	68	84
JUN											
14...	0955	918	910	8.3	25.0	--	25	9.6	6.0	210	230
JUL											
06...	1020	3190	892	8.2	17.5	40	30	8.9	2.7	K5200	800
AUG											
15...	1000	275	779	8.3	15.5	--	8	10.2	3.6	870	420
SEP											
05...	0940	330	870	7.8	24.0	--	15	10.1	6.2	2000	172

K Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE (MG/L AS HCO3) (00440)	CAR-BONATE (MG/L AS CO3) (00445)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)
OCT											
03...	250	--	62	22	92	2.6	12	--	--	204	200
NOV											
16...	230	--	60	20	79	2.3	11	--	--	--	180
DEC											
26...	250	69	65	21	80	2.2	13	--	--	180	220
JAN											
17...	280	74	74	23	86	2.2	10	250	0	210	230
FEB											
07...	280	80	74	23	87	2.3	12	--	--	200	220
MAR											
21...	290	87	82	20	73	1.9	12	--	--	200	200
APR											
12...	230	51	61	19	72	2.1	9.9	--	--	180	190
MAY											
24...	290	100	78	23	83	2.1	7.0	--	--	190	230
JUN											
14...	300	140	79	25	91	2.3	13	--	--	160	270
JUL											
06...	300	110	78	26	86	2.2	12	230	0	190	270
AUG											
15...	250	75	69	20	69	1.9	11	--	--	180	200
SEP											
05...	280	100	75	23	89	2.3	10	--	--	180	250

06770500 PLATTE RIVER NEAR GRAND ISLAND, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	SOLIDS, DISSOLVED (TONS PER AC-FT) (70303)	SOLIDS, DISSOLVED (TONS PER DAY) (70302)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)
OCT 03...	30	.6	21	573	--	.78	834	.04	--	.02
NOV 16...	24	.5	25	528	--	.72	1130	.43	--	.01
DEC 26...	32	.5	27	551	570	.75	1370	--	.77	.01
JAN 17...	28	.5	30	--	605	.82	1250	.75	--	.14
FEB 07...	26	.4	30	601	597	.82	1190	.82	.82	.09
MAR 21...	29	.5	28	552	569	.75	2640	.96	.96	.05
APR 12...	22	.5	26	522	512	.71	2890	.68	.66	.01
MAY 24...	30	.6	21	611	590	.83	1230	.60	.60	.04
JUN 14...	33	.5	15	642	623	.87	1590	.18	.16	.06
JUL 06...	32	.6	27	--	645	.88	5560	.35	--	.06
AUG 15...	28	.6	22	569	530	.77	422	.52	.52	.01
SEP 05...	32	.6	25	611	615	.83	544	.40	.40	.10

DATE	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, DISSOLVED (MG/L AS P) (00666)	ALUMINUM, DISSOLVED (UG/L AS AL) (01106)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	VANADIUM, DISSOLVED (UG/L AS V) (01085)
OCT 03...	.52	.54	.58	.10	.04	0	150	30	10	2.8
NOV 16...	.34	.35	.78	.06	.03	20	140	10	3	--
DEC 26...	.47	.48	--	.12	.06	5	150	10	30	1.8
JAN 17...	.40	.54	1.3	.09	.09	70	150	10	10	3.9
FEB 07...	.32	.41	1.2	.09	.07	10	140	10	10	3.9
MAR 21...	.35	.40	1.4	.13	.07	10	130	10	10	5.2
APR 12...	.65	.66	1.3	.05	.06	20	130	10	3	4.5
MAY 24...	.62	.66	1.3	.10	.06	0	170	10	0	4.5
JUN 14...	.94	1.0	1.2	.16	.01	10	0	10	10	5.7
JUL 06...	1.2	1.3	1.7	.24	.04	50	140	10	2	4.0
AUG 15...	.63	.64	1.2	.13	.01	20	140	10	1	2.0
SEP 05...	.81	.91	1.3	.15	.02	0	150	10	0	4.0

DATE	TIME	ARSENIC DISSOLVED (UG/L AS AS) (01000)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COPPER, DISSOLVED (UG/L AS CU) (01040)	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	MERCURY SUSPENDED RECOVERABLE (UG/L AS HG) (71895)	MERCURY DISSOLVED (UG/L AS HG) (71890)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	SILVER, DISSOLVED (UG/L AS AG) (01075)	ZINC, DISSOLVED (UG/L AS ZN) (01090)
JAN 17...	1000	4	<1	0	6	.1	.1	.0	2	1	4
JUL 06...	1020	6	--	0	1	.1	.1	.0	1	0	3

06770500 PLATTE RIVER NEAR GRAND ISLAND, NE--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	895	819	830	885	758	845	795	845	875	900	845	807
2	855	815	824	895	723	802	778	850	868	975	871	943
3	840	802	818	898	730	755	788	805	885	975	878	885
4	840	800	720	895	728	750	809	856	886	945	879	888
5	848	803	818	893	735	733	810	854	900	926	885	880
6	830	804	808	898	732	712	800	862	900	987	887	827
7	838	798	805	900	735	710	806	857	893	888	888	879
8	835	790	708	900	748	710	797	811	828	895	890	837
9	845	787	807	895	738	708	803	832	814	924	900	842
10	830	789	820	903	727	714	797	748	838	920	875	885
11	835	785	809	905	727	736	755	815	857	933	890	887
12	829	803	849	890	705	724	748	871	900	971	890	899
13	838	782	838	900	720	800	788	875	918	975	918	887
14	840	783	839	905	750	800	799	877	932	953	860	900
15	840	781	860	855	740	798	807	873	948	923	848	915
16	860	788	838	900	747	815	808	872	929	940	842	905
17	833	778	818	905	740	808	808	874	888	912	874	915
18	830	795	818	905	735	786	800	878	918	930	870	922
19	821	792	818	895	742	735	760	868	929	935	802	922
20	820	925	838	895	738	817	760	845	962	937	860	925
21	800	920	818	888	745	816	755	864	986	945	842	925
22	770	927	839	885	748	815	800	873	975	935	872	935
23	785	915	819	885	748	818	808	887	957	935	870	920
24	795	809	818	890	735	818	800	889	957	943	860	930
25	788	801	818	885	749	835	769	889	968	933	868	943
26	805	802	818	890	749	845	768	890	945	933	804	922
27	805	795	818	893	749	826	796	889	935	930	844	922
28	800	755	818	890	740	826	813	893	932	915	848	911
29	805	765	816	885	---	825	799	888	919	917	832	918
30	810	819	818	890	---	825	797	852	935	876	844	903
31	809	---	818	890	---	825	---	850	---	939	870	---

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14.5	7.0	2.0	1.5	1.5	1.5	5.5	8.0	15.0	22.5	20.5	21.0
2	15.0	7.0	2.0	1.5	1.5	1.5	6.0	8.0	15.0	24.0	22.5	20.5
3	10.0	9.5	1.5	1.5	1.5	1.5	5.0	8.5	15.0	24.0	23.0	20.5
4	10.0	9.5	1.5	1.5	1.5	1.5	6.0	9.0	18.0	22.0	22.5	20.0
5	9.5	8.0	1.5	1.5	1.5	2.0	7.0	11.0	17.0	22.0	22.5	20.5
6	9.5	8.5	1.5	1.5	1.5	2.0	6.0	12.0	18.0	19.0	22.5	20.5
7	9.5	6.5	1.5	1.5	1.5	4.0	5.5	11.0	18.5	18.5	22.0	18.0
8	9.5	7.0	1.5	1.5	1.5	2.5	6.0	11.0	16.0	19.0	22.0	21.0
9	10.5	9.5	1.5	1.5	1.5	2.5	7.0	10.0	13.5	20.5	21.5	20.0
10	12.0	9.0	2.0	1.5	1.5	2.0	8.0	7.0	19.0	23.0	19.5	17.5
11	12.0	7.5	2.0	1.5	1.5	2.0	9.0	7.0	16.0	24.0	17.0	18.5
12	9.5	7.5	2.0	1.5	1.5	2.0	8.5	12.0	18.0	24.5	17.0	17.0
13	9.5	8.0	2.0	1.5	1.5	2.5	6.0	13.0	21.0	24.5	17.5	13.0
14	9.0	7.0	2.0	1.5	1.5	2.5	10.0	13.5	21.5	24.0	17.0	14.0
15	8.0	7.0	2.0	1.5	1.5	2.5	12.0	14.0	21.5	23.5	16.0	13.5
16	7.5	7.0	2.5	1.5	1.5	4.0	13.0	15.0	21.5	22.0	15.5	14.0
17	7.0	7.0	2.0	1.5	1.5	5.0	13.5	15.5	17.0	21.0	18.5	14.0
18	9.0	7.0	2.0	1.5	1.5	5.5	15.0	16.0	19.5	20.0	21.0	14.0
19	9.5	6.5	2.0	1.5	1.5	5.5	14.0	14.0	20.5	21.0	19.5	14.0
20	10.0	5.0	2.0	1.5	1.5	5.5	13.5	15.0	17.5	21.5	20.0	14.0
21	12.0	4.0	2.0	1.5	1.5	8.0	13.0	13.0	20.0	22.0	20.0	14.0
22	11.0	3.0	2.0	1.0	1.5	6.0	13.5	15.0	21.0	23.0	19.5	13.5
23	6.0	3.0	2.0	1.0	1.5	3.5	13.5	14.0	21.5	23.5	19.0	13.5
24	9.0	2.5	2.0	1.0	1.5	2.0	14.5	14.0	20.0	22.5	18.0	15.5
25	10.0	2.5	2.0	1.0	1.5	4.5	14.0	14.5	20.0	22.0	19.0	15.0
26	6.5	2.5	2.0	1.0	1.5	6.0	12.0	14.5	21.0	22.0	19.0	15.0
27	7.0	2.0	2.0	1.0	1.5	6.5	10.0	15.0	26.5	22.5	19.0	16.0
28	7.0	2.0	2.0	1.0	1.5	6.5	10.0	16.5	24.0	22.5	18.5	15.5
29	8.0	1.5	2.0	1.0	---	7.0	10.0	18.0	23.5	23.0	20.0	15.5
30	10.5	1.5	2.0	1.0	---	6.5	11.0	17.5	23.0	23.5	20.0	16.0
31	10.0	---	1.5	1.0	---	6.0	---	17.0	---	23.0	21.0	---

06772000 WOOD RIVER NEAR ALDA, NE

LOCATION.--Lat 40°51'10", long 98°28'20", in NE1/4SE1/4 sec.7, T.10 N., R.10 W., Hall County, Hydrologic Unit 10200102, on right bank 1.2 mi (1.9 km) south of Alda, 2.2 mi (3.5 km) upstream from old north channel of the Platte River, and 19 mi (31 km) upstream from present mouth.

DRAINAGE AREA.--628 mi² (1,627 km²).

PERIOD OF RECORD.--October 1953 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,897.66 ft (578.407 m) National Geodetic Vertical Datum of 1929 (Water and Power Resources Service, formerly Bureau of Reclamation, bench mark).

REMARKS.—Records poor. Numerous small pump diversions for irrigation above station.

AVERAGE DISCHARGE.--26 years, 10.9 ft³/s (0.309 m³/s), 7,900 acre-ft/yr (9.74 hm³/yr); median of yearly mean discharges, 8.3 ft³/s (0.235 m³/s), 6,000 acre-ft/yr (7.40 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,630 ft³/s (46.2 m³/s) June 16, 1967, gage height, 12.22 ft (3.725 m); no flow for most of each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 343 ft³/s (9.71 m³/s), Mar. 24 at 0100, gage height, 8.60 ft (2.621 m), no other peak above base of 300 ft³/s (8.50 m³/s); maximum gage height, 9.22 ft (2.810 m) probably occurred Mar. 5, from outside floodmark, backwater from ice; no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	3.0	3.4	.00	.00	33	26	20
2	.00	.00	.00	.00	.00	5.0	2.8	4.0	.00	32	13	23
3	.00	.00	.00	.00	.00	12	1.3	.26	.00	32	14	29
4	.00	.00	.00	.00	.00	32	1.2	3.5	.00	33	15	27
5	.00	.00	.00	.00	.00	64	.53	5.4	.00	54	15	12
6	.00	.00	.00	.00	.00	156	.59	4.0	.00	66	15	8.0
7	.00	.00	.00	.00	.00	150	.00	.49	.00	52	15	6.5
8	.00	.00	.00	.00	.00	160	.00	.04	.00	51	14	6.2
9	.00	.00	.00	.00	.00	155	.00	.10	.00	54	14	6.8
10	.00	.00	.00	.00	.00	160	.00	10	.00	42	14	5.5
11	.00	.00	.00	.00	.00	155	.00	7.0	.00	48	13	.35
12	.00	.00	.00	.00	.00	160	.00	5.2	.00	42	13	.82
13	.00	.00	.00	.00	.00	116	.00	5.4	.49	29	12	.37
14	.00	.00	.00	.00	.00	79	.46	3.8	.59	19	11	.39
15	.00	.00	.00	.00	.00	48	2.5	2.4	.00	17	10	.29
16	.00	.00	.00	.00	.00	29	.37	2.4	.00	12	10	.00
17	.00	.00	.00	.00	.00	24	.00	1.3	.00	10	9.2	.00
18	.00	.00	.00	.00	.00	18	.00	.59	.00	6.2	9.5	.00
19	.00	.00	.00	.00	.00	12	.00	.49	.00	1.9	9.2	.00
20	.00	.00	.00	.00	.00	7.8	.00	.32	.00	3.2	9.2	.00
21	.00	.00	.00	.00	.00	7.5	.00	1.3	.00	3.6	9.2	.00
22	.00	.00	.00	.00	.00	39	.37	.70	.00	4.2	9.0	.00
23	.00	.00	.00	.00	.00	244	.00	.00	.00	4.6	9.0	.00
24	.00	.00	.00	.00	.00	296	.00	.59	.90	5.0	8.8	.00
25	.00	.00	.00	.00	.00	136	.84	7.0	29	5.8	8.8	.00
26	.00	.00	.00	.00	.20	71	3.5	7.0	53	6.5	8.8	.00
27	.00	.00	.00	.00	.50	42	.89	4.5	34	7.0	8.5	.00
28	.00	.00	.00	.00	1.1	26	.26	3.5	31	8.0	8.5	.00
29	.00	.00	.00	.00	---	15	.00	2.2	25	8.5	8.5	.00
30	.00	.00	.00	.00	---	8.8	.00	.59	28	22	15	.00
31	.00	---	.00	.00	---	5.0	---	.00	---	65	21	---
TOTAL	.00	.00	.00	.00	1.80	2436.1	19.01	84.07	201.98	777.5	376.2	146.22
MEAN	.000	.000	.000	.000	.064	78.6	.63	2.71	6.73	25.1	12.1	4.87
MAX	.00	.00	.00	.00	1.1	296	3.5	10	53	66	26	29
MIN	.00	.00	.00	.00	.00	3.0	.00	.00	.00	1.9	8.5	.00
AC-FT	.00	.00	.00	.00	3.6	4830	38	167	401	1540	746	290

CAL YR 1978 TOTAL 5484.79 MEAN 15.0 MAX 807 MIN .00 AC-FT 10880
WTR YR 1979 TOTAL 4042.88 MEAN 11.1 MAX 296 MIN .00 AC-FT 8020

06772200 WOOD RIVER NEAR GRAND ISLAND, NE

LOCATION.--Lat 40°56'05", long 98°16'56", in SW1/4NW1/4SW1/4 sec.7, T.11 N., R.8 W., Merrick County, Hydrologic Unit 10200102, at bridge on county road, 1.0 miles south of U.S. Highway 30, 3.0 miles east of Grand Island.

PERIOD OF RECORD.--Water year 1973 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)
OCT 03...	0950	14	1040	7.4	16.0	4.7	8.0	--	12	K280000
NOV 30...	1040	14	1020	7.6	14.0	2.7	9.7	19	15	30000
DEC 26...	1050	12	886	7.5	11.0	.40	10.4	20	15	11000
JAN 25...	1410	12	1270	7.6	12.0	1.6	11.8	68	16	K76000
FEB 28...	1010	9.9	1140	7.6	9.5	11	10.2	1100	29	13000
MAR 21...	1120	61	777	7.4	16.5	17	7.2	27	3.0	5100
APR 25...	1040	45	615	7.4	11.0	1.0	7.8	32	7.8	18000
MAY 24...	1140	39	785	7.4	17.5	6.8	8.9	20	1.8	48000
JUN 27...	1300	58	449	7.1	25.5	320	5.4	200	16	45000
JUL 25...	1110	26	848	7.7	24.5	19	7.7	32	14	56000
AUG 30...	1035	13	1070	7.9	24.5	31	7.8	63	14	K69000
SEP 27...	1100	8.7	1020	7.4	22.0	3.3	8.5	58	33	14000

K Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	CALCIUM TOTAL RECOV-ERABLE (MG/L AS CA) (00916)	MAGNE-SIUM, TOTAL RECOV-ERABLE (MG/L AS MG) (00927)	SODIUM, TOTAL RECOV-ERABLE (MG/L AS NA) (00929)	POTAS-SIUM, TOTAL RECOV-ERABLE (MG/L AS K) (00937)	BICAR-BONATE (MG/L AS HCO3) (00440)	CAR-BONATE (MG/L AS CO3) (00445)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)
OCT 03...	12000	--	--	--	--	276	0	226	--	98
NOV 30...	3300	75	16	120	15	302	0	248	190	100
DEC 26...	5000	67	16	180	14	304	0	200	130	61
JAN 25...	9400	93	17	150	18	336	0	220	190	180
FEB 28...	7200	82	15	130	15	295	0	242	190	140
MAR 21...	4400	68	.5	64	8.6	280	0	140	140	59
APR 25...	610	53	1.8	41	7.3	239	0	140	99	38
MAY 24...	1200	77	16	60	13	326	0	267	140	52
JUN 27...	16000	45	14	27	21	196	0	100	65	27
JUL 25...	1600	80	15	63	18	323	0	200	170	48
AUG 30...	5600	93	17	95	16	414	0	340	200	88
SEP 27...	6000	67	16	86	16	334	0	170	190	94

06772200 WOOD RIVER NEAR GRAND ISLAND, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L) (00500)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)
OCT										
03...	666	.91	25.2	--	4.0	.22	1.6	1.8	5.8	3.2
NOV										
30...	669	.91	25.3	--	1.6	6.8	.00	6.8	8.4	1.6
DEC										
26...	534	.73	17.3	575	1.5	6.3	.70	7.0	8.5	2.2
JAN										
25...	808	1.10	26.2	843	1.2	11	.00	11	12	1.9
FEB										
28...	716	.97	19.1	--	1.4	7.6	.60	8.2	9.6	2.4
MAR										
21...	516	.70	85.0	592	2.2	2.7	.80	3.5	5.7	1.0
APR										
25...	391	.53	47.5	457	3.0	1.9	.90	2.8	5.8	1.4
MAY										
24...	524	.71	55.2	--	2.4	2.2	.70	2.9	5.3	1.3
JUN										
27...	300	.41	47.0	966	3.1	.46	.84	1.3	4.4	1.1
JUL										
25...	545	.74	38.3	634	2.6	2.5	1.7	4.2	6.8	.60
AUG										
30...	726	.99	25.5	--	1.2	5.9	.30	6.2	7.4	1.7
SEP										
27...	676	.92	15.9	711	4.8	5.9	2.0	7.9	13	6.0

DATE	TIME	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, SUS-PENDED TOTAL (MG/L AS MG) (00926)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)
NOV									
30...	1040	250	2	72	--	17	110	3.0	15
FEB									
28...	1010	250	8	75	--	16	130	3.6	15
MAY									
24...	1140	280	280	84	.0	18	61	1.6	7.9
AUG									
30...	1035	320	0	97	.0	19	100	2.4	17

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P) (00666)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)
NOV								
30...	.5	27	681	1.1	210	20	60	3
FEB								
28...	.5	26	738	2.3	210	50	50	4
MAY								
24...	.5	20	--	1.1	160	20	50	4
AUG								
30...	.5	27	549	--	220	20	20	3

06772500 WOOD RIVER NEAR CHAPMAN, NE

LOCATION.--Lat 40°57'56", long 98°12'22", in NE1/4SE1/4 sec.34, T.12 N., R.8 W., Merrick County, Hydrologic Unit 10200102, at county road bridge 2.5 miles west and 4.0 miles south of center of Chapman.

DRAINAGE AREA.--700 sq mi, approximately.

PERIOD OF RECORD.--Water year 1968 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (JTU) (00070)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT										
26...	1145	11	1010	7.9	11.0	8	10.7	7.8	K4700	4400
NOV										
16...	1200	9.9	1170	8.0	7.5	35	11.0	55	K260000	8800
DEC										
06...	1020	10	1180	7.8	1.5	6	12.4	10	3500	810
JAN										
17...	1155	16	1070	7.7	.5	7	10.2	14	K64000	11000
FEB										
28...	0910	12	1280	7.7	3.5	25	9.5	11	34000	15000
MAR										
13...	1440	166	336	7.3	8.0	140	10.0	24	K1900	13000
APR										
12...	1120	78	733	7.5	11.0	30	8.4	7.8	4500	4800
MAY										
03...	1130	65	796	7.6	9.5	20	9.3	9.3	29000	K24000
JUN										
14...	1200	33	716	7.3	26.5	15	8.2	12	7000	410
JUL										
25...	0935	25	856	8.0	23.5	35	7.9	23	K70000	2400
AUG										
30...	0920	9.9	1150	8.0	23.5	40	7.4	17	K68000	13000
SEP										
27...	0945	3.8	1160	7.8	17.5	15	7.7	10	8700	5600

K Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)
OCT										
26...	100	661	.90	19.6	2.1	--	--	--	--	2.2
NOV										
16...	140	732	1.00	19.6	2.3	2.8	3.4	6.2	8.5	2.3
DEC										
06...	130	740	1.01	20.0	2.1	6.2	.10	6.3	8.4	2.7
JAN										
17...	120	--	.95	30.1	--	--	--	--	--	--
FEB										
28...	160	782	1.06	25.3	1.3	9.1	3.9	13	14	3.2
MAR										
13...	16	241	.33	108	1.5	1.5	1.4	2.9	4.4	1.7
APR										
12...	42	480	.65	101	3.2	.90	1.0	1.9	5.1	.71
MAY										
03...	48	537	.73	94.2	3.1	1.4	.60	2.0	5.1	1.2
JUN										
14...	33	480	.65	42.8	2.9	.84	.46	1.3	4.2	1.0
JUL										
25...	51	--	.76	37.6	3.1	1.3	2.3	3.6	6.7	1.1
AUG										
30...	110	747	1.02	20.0	2.5	4.6	.40	5.0	7.5	2.0
SEP										
27...	150	754	1.03	7.78	2.4	9.4	--	--	--	7.1

06772500 WOOD RIVER NEAR CHAPMAN, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L CACO3) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LINITY (MG/L AS CACO3) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)
OCT										
26...	1145	280	130	83	17	110	2.9	14	150	190
JAN										
17...	1155	290	90	88	17	120	3.1	16	200	180
APR										
12...	1120	260	79	79	15	56	1.5	11	180	140
JUL										
25...	0935	290	79	86	18	65	1.7	18	210	170

DATE	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00666)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)
OCT										
26...	.5	27	--	1.9	2.1	3	0	200	1	0
JAN										
17...	.5	26	697	2.0	3.0	--	--	170	--	--
APR										
12...	.4	22	487	2.9	.67	3	100	120	<1	20
JUL										
25...	.5	22	557	--	.96	--	--	140	--	--

DATE	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MERCURY SUS- PENDED RECOV- ERABLE (UG/L AS HG) (71895)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)
OCT									
26...	4	40	40	.0	--	.0	4	0	20
JAN									
17...	--	20	60	--	--	--	--	--	--
APR									
12...	3	10	110	.2	.2	.0	4	0	9
JUL									
25...	--	20	<1	--	--	--	--	--	--

06774000 PLATTE RIVER NEAR DUNCAN, NE
(National stream-quality accounting network station)

LOCATION.--Lat 41°22'04", long 97°29'40", in SE1/4SW1/4 sec.12, T.16 N., R.2 W., Platte County, Hydrologic Unit 10200103, on left bank 25 ft (8 m) downstream from highway bridge, 1.5 mi (2.4 km) south of Duncan, and 12 mi (19 km) upstream from Loup River.

DRAINAGE AREA.--60,900 mi^2 (157,700 km^2), approximately, of which about 56,100 mi^2 (145,300 km^2) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1895 to December 1909 (irrigation seasons only 1895-1900), July 1910 to December 1911 (gage heights and discharge measurements only), April 1912 to September 1915, June 1928 to current year. Published as "near Columbus" 1895-1915.

REVISED RECORDS.--WSP 956: 1935. WSP 1390: 1897, 1899-1901, 1903-5, 1929-32, 1935(M), 1936. WDR NE-76-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,478.82 ft (450.744 m) (revised) National Geodetic Vertical Datum of 1929. June 1895 to December 1909, April 1912 to September 1915, and June to October 1928 nonrecording gage at site 7 mi (11 km) downstream at different datums. Oct. 25, 1928, to Feb. 20, 1935, nonrecording gage at present site and datum.

REMARKS.--Records good except those for winter period, which are poor. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 44,100 ft^3/s (1,250 m^3/s) June 23, 1905, gage height, 6.50 ft (1.981 m), site and datum then in use; no flow at times in 1931, 1933-42, 1944, 1952-57, 1959, 1963, 1974, 1976, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 9,640 ft^3/s (273 m^3/s) Mar. 19, gage height, 4.19 ft (1.277 m); maximum gage height, 4.84 ft (1.475 m) Mar. 10, backwater from ice; minimum daily discharge, 102 ft^3/s (2.89 m^3/s) Sept. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	185	811	1100	720	640	1100	1980	1580	637	5760	745	286
2	214	794	1040	560	640	1200	2000	2830	637	5430	1450	328
3	226	794	1000	500	620	1180	2020	3190	622	4630	1820	372
4	229	794	980	520	620	1140	1910	3090	536	4040	1400	286
5	220	794	1020	520	620	1300	1770	2670	482	4550	812	195
6	246	778	900	540	680	1400	1740	2310	444	3970	509	149
7	262	777	800	500	660	1600	1760	1890	395	3840	384	238
8	286	777	760	480	680	2000	1650	1620	384	3600	306	229
9	296	777	800	500	700	2700	1640	1540	622	3380	257	195
10	306	772	900	520	720	3500	1680	2520	762	3040	229	156
11	302	765	1000	520	740	4500	2280	3490	796	2650	203	102
12	296	833	1100	520	740	5600	2580	3460	775	2280	195	135
13	316	880	1060	500	760	6400	2650	2810	847	1920	156	171
14	348	905	1040	480	780	7900	2400	2370	1030	1520	121	171
15	328	916	1020	500	800	5380	2200	1920	1090	1710	120	164
16	284	916	980	520	820	4150	1920	1620	1110	1340	142	140
17	277	916	960	560	760	2970	1820	1430	1070	1030	195	120
18	354	915	980	600	820	2300	1690	1290	1150	882	187	127
19	466	853	1000	720	880	2160	1620	1190	1150	730	182	179
20	527	760	1040	660	920	2030	1830	1150	1170	607	164	220
21	583	492	1060	740	900	1930	2310	1130	1470	607	171	247
22	670	509	1040	640	880	2840	2370	1110	2370	592	195	266
23	768	403	1020	580	880	5040	2200	991	3740	637	212	266
24	844	579	1000	600	900	5490	1840	935	4280	762	220	266
25	837	686	1000	640	960	4720	1950	917	4660	746	220	250
26	811	816	1020	620	1020	4000	1910	864	4540	550	257	238
27	809	1100	1080	600	1000	3700	1930	779	4860	496	290	247
28	788	1100	1100	600	980	3250	1910	714	5830	457	306	247
29	813	1140	1080	580	---	2750	1850	652	5390	482	286	257
30	818	1120	1000	640	---	2380	1620	667	5650	482	257	286
31	811	---	880	580	---	2150	---	667	---	522	257	---
TOTAL	14520	24472	30760	17760	22120	98760	59030	53396	58499	63242	12248	6533
MEAN	468	816	992	573	790	3186	1968	1722	1950	2040	395	218
MAX	844	1140	1100	740	1020	7900	2650	3490	5830	5760	1820	372
MIN	185	403	760	480	620	1100	1620	652	384	457	120	102
AC-FT	28800	48540	61010	35230	43880	195900	117100	105900	116000	125400	24290	12960

CAL YR 1978 TOTAL 388117.20 MEAN 1063 MAX 18500 MIN .00 AC-FT 769800
WTR YR 1979 TOTAL 461340.00 MEAN 1264 MAX 7900 MIN 102 AC-FT 915100

06774000 PLATTE RIVER NEAR DUNCAN, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water year 1965 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: November 1977 to current year.
WATER TEMPERATURES: November 1977 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 978 micromhos June 24, 1978; minimum daily, 290 micromhos Mar. 21, 1978.
WATER TEMPERATURES: Maximum, 31.0°C July 17, 20, 23, 30, 1978; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 899 micromhos Sept. 26; minimum daily, 438 micromhos May 14.
WATER TEMPERATURES: Maximum, 30.0°C on many days during summer period; minimum, 0.0°C on many days during winter period.

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (JTU) (00070)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)
OCT										
24...	1200	780	810	8.1	16.0	5	.90	12.5	4.9	106
DEC										
01...	0900	1100	785	7.9	1.0	4	3.0	--	5.0	K38
21...	1020	1060	860	8.2	.0	5	1.5	11.8	2.6	K90
JAN										
17...	1545	555	852	7.7	.5	3	1.4	10.2	3.2	K140
FEB										
14...	1045	770	848	7.8	.5	4	1.4	10.1	.7	440
MAR										
13...	1400	6430	630	7.7	2.0	--	27	12.0	4.0	K100
28...	1540	3160	701	8.0	12.0	55	--	6.5	--	K100
APR										
11...	1630	2310	720	8.2	5.5	15	11	9.0	2.2	370
MAY										
08...	1145	1650	875	8.2	13.0	20	9.8	6.8	3.8	K30
JUN										
12...	1355	764	830	7.5	28.0	15	4.3	7.4	2.3	K20
29...	1430	5100	896	8.5	28.5	15	12	5.3	5.4	830
JUL										
06...	1130	4000	808	7.6	19.0	--	22	--	6.0	5200
AUG										
01...	1345	672	867	7.3	28.5	40	4.7	10.0	10	K90
SEP										
25...	1125	251	885	8.3	17.5	15	13	9.7	6.0	K67

DATE	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)
OCT									
24...	460	220	77	54	20	87	2.6	13	140
DEC									
01...	--	250	66	64	21	94	2.6	13	180
21...	144	270	78	71	22	87	2.3	12	190
JAN									
17...	84	260	63	69	22	80	2.1	14	200
FEB									
14...	172	270	130	71	22	78	2.1	11	140
MAR									
13...	490	210	72	60	15	54	1.6	11	140
28...	K165000	--	--	--	--	--	--	--	--
APR									
11...	2000	220	47	59	17	66	1.9	10	170
MAY									
08...	K64	260	81	73	19	61	1.6	11	180
JUN									
12...	96	250	98	63	22	84	2.3	13	150
29...	760	280	91	73	26	81	2.1	13	190
JUL									
06...	700	270	95	72	23	77	2.0	12	180
AUG									
01...	120	250	100	63	23	82	1.8	14	150
SEP									
25...	13	260	100	63	26	96	2.6	14	160

K Results based on colony count outside the acceptable range (non-ideal colony count).

06774000 PLATTE RIVER NEAR DUNCAN, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS- SOLVED (TONS PER DAY) (70302)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)
OCT									
24...	200	36	.5	18	547	513	.74	1150	.01
DEC									
01...	230	26	.4	23	549	560	.75	1630	.47
21...	210	29	.5	25	571	571	.78	1630	.55
JAN									
17...	220	25	.5	24	611	575	.83	916	.64
FEB									
14...	200	32	.5	25	570	527	.78	1190	.73
MAR									
13...	150	20	.4	19	427	414	.58	7410	.88
28...	--	--	--	--	--	--	--	--	--
APR									
11...	170	21	.5	23	486	469	.66	3030	1.3
MAY									
08...	180	21	.5	18	502	494	.68	2240	.47
JUN									
12...	220	29	.4	12	552	534	.75	1140	.02
29...	240	25	.6	25	630	596	.86	8680	.03
JUL									
06...	230	27	.6	26	589	576	.80	6360	.12
AUG									
01...	240	30	.5	18	571	561	.78	1040	.01
SEP									
25...	260	32	.6	22	613	610	.83	415	.01

DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, NH4 + ORG. SUSP. TOTAL (MG/L AS N) (00624)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00666)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
OCT									
24...	.01	.53	.54	.12	.42	.55	--	.15	4.3
DEC									
01...	.01	.49	.50	.15	.35	.97	.09	.07	--
21...	.01	.39	.40	.11	.29	.95	.10	.10	3.9
JAN									
17...	.04	4.2	4.2	3.5	.66	4.8	.09	.08	3.1
FEB									
14...	.04	4.1	4.1	3.7	.37	4.8	.11	.08	--
MAR									
13...	.17	.93	1.1	.49	.61	2.0	.34	.24	11
28...	--	--	--	--	--	--	--	--	--
APR									
11...	.08	.83	.91	.44	.47	2.2	.20	.16	5.6
MAY									
08...	.00	.45	.45	.00	.45	.92	.19	.09	--
JUN									
12...	.06	.62	.68	.29	.39	.70	.07	.06	8.4
29...	.08	.45	.53	.10	.43	.56	.08	.05	--
JUL									
06...	.07	1.0	1.1	.83	.27	1.2	.32	.15	11
AUG									
01...	.01	1.5	1.5	.78	.72	1.5	.32	.00	--
SEP									
25...	.01	.85	.86	.41	.45	.87	.15	.00	8.8

DATE	TIME	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, DIS- SOLVED (MG/L AS N) (00602)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA) (01007)	BARIUM, SUS- PENDED RECOV- ERABLE (UG/L AS BA) (01006)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CADMIU SUS- PENDE RECOV ERABL (UG/L AS CD (01026
DEC											
01...	0900	--	--	4	5	--	--	70	--	5	-
FEB											
14...	1045	.73	--	4	3	100	30	70	130	--	-
MAY											
08...	1145	.41	.89	5	6	100	0	100	80	3	
JUN											
29...	1030	.00	.43	7	6	100	10	90	150	2	
AUG											
01...	1345	--	--	5	4	100	30	70	--	1	

06774000 PLATTE RIVER NEAR DUNCAN, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	CHRO-MIUM, SUS-PENDED RECOV. (UG/L AS CR) (01031)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO) (01037)	COBALT, SUS-PENDED RECOV-ERABLE (UG/L AS CO) (01036)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	COPPER, SUS-PENDED RECOV-ERABLE (UG/L AS CU) (01041)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)
DEC											
01...	--	10	10	0	2	0	<3	4	0	4	310
FEB											
14...	--	0	0	0	2	0	<3	6	4	2	70
MAY											
08...	0	0	0	0	1	0	<3	0	0	2	740
JUN											
29...	<1	20	20	0	3	0	<3	10	9	1	660
AUG											
01...	<1	0	0	0	2	0	<3	6	2	4	1100

DATE	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE) (01044)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, SUS-PENDED RECOV-ERABLE (UG/L AS PB) (01050)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN) (01054)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY SUS-PENDED RECOV-ERABLE (UG/L AS HG) (71895)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)
DEC											
01...	260	50	--	--	--	40	30	6	.0	.0	.0
FEB											
14...	50	20	--	--	--	50	10	40	.2	.0	.3
MAY											
08...	730	10	18	18	0	80	70	7	.2	.2	.0
JUN											
29...	660	0	58	58	0	80	80	<1	.2	.1	.1
AUG											
01...	1100	20	12	12	0	230	230	3	1.2	.8	.4

DATE	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, SUS-PENDED TOTAL (UG/L AS SE) (01146)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG) (01077)	SILVER, SUS-PENDED RECOV-ERABLE (UG/L AS AG) (01076)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, SUS-PENDED RECOV-ERABLE (UG/L AS ZN) (01091)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)
DEC											
01...	3	0	3	0	0	0	20	10	7	3.9	.5
FEB											
14...	1	0	2	1	0	1	10	0	10	4.6	.4
MAY											
08...	2	0	2	0	0	0	30	10	20	6.2	2.5
JUN											
29...	0	0	0	0	0	0	40	40	<3	7.3	.3
AUG											
01...	1	0	1	0	0	0	50	50	<3	5.9	1.6

06774000 PLATTE RIVER NEAR DUNCAN, NE--Continued

PHYTOPLANKTON ANALYSES, JUNE 1978 TO AUGUST 1979

DATE	AUG 3,78	AUG 28,78	SEP 25,78	DEC 1,78	JAN 17,79	MAR 13,79
TIME	1430	1300	1600	0900	1545	1400
TOTAL CELLS/ML	32000	11000	110000	6300	810	3100
DIVERSITY: DIVISION	0.5	1.5	1.4	1.4	0.9	1.1
.CLASS	0.5	1.5	1.4	1.5	0.9	1.1
..ORDER	1.2	1.9	2.3	2.3	1.4	2.0
...FAMILY	2.7	2.8	2.8	3.5	2.4	2.8
....GENUS	3.1	3.2	3.2	0.0	2.9	3.3

ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)												
.CHLOROPHYCEAE												
..CHLOROCOCCALES												
...CHARACIACEAE												
....SCHROEDERIA	--	-	--	-	*	0	--	-	--	-	--	-
...COELASTRACEAE												
....COELASTRUM	530	2	270	2	--	-	290	5	--	-	--	-
...HYDRODICTYACEAE												
....PEDIASTRUM	1600	5	710	6	--	-	510	8	--	-	100	3
...MICRACTINIACEAE												
....GOLENKINIA	*	0	--	-	*	0	--	-	--	-	--	-
....MICRACTINIUM	6200#	19	270	2	4200	4	--	-	--	-	--	-
...OOCYSTACEAE												
....ANKISTRODESMUS	270	1	910	8	1200	1	400	6	46	6	*	0
....CHODATELLA	--	-	--	-	--	-	73	1	--	-	--	-
....DICTYOSPHAERIUM	11000#	33	--	-	4000	3	--	-	--	-	--	-
....FRANCEIA	--	-	--	-	--	-	--	-	--	-	--	-
....KIRCHNERIELLA	--	-	--	-	--	-	180	3	--	-	--	-
....OOCYSTIS	--	-	--	-	990	1	36	1	--	-	--	-
....SELENASTRUM	--	-	--	-	--	-	220	3	--	-	--	-
....TETRAEDRON	--	-	*	0	--	-	--	-	--	-	--	-
....TREUBARIA	*	0	--	-	--	-	--	-	--	-	--	-
....WESTELLA	--	-	--	-	--	-	--	-	--	-	--	-
...SCENEDESMACEAE												
....ACTINASTRUM	4200	13	--	-	990	1	--	-	--	-	--	-
....CORONASTRUM	--	-	--	-	--	-	--	-	--	-	--	-
....CRUCIGENIA	430	1	140	1	990	1	--	-	--	-	--	-
....SCENEDESMUS	1400	4	2200#	20	10000	9	1100#	17	--	-	200	7
....TETRASTRUM	--	-	140	1	990	1	150	2	31	4	--	-
..TETRASPORALES												
...COCCOMYXACEAE												
....ELAKATOTHRIX	--	-	--	-	--	-	--	-	--	-	38	1
...PALMELLACEAE												
....SPHAEROCYSTIS	--	-	270	2	1700	2	--	-	--	-	--	-
...TETRASPORACEAE												
....TETRASPORA	1100	3	--	-	--	-	--	-	--	-	--	-
..VOLVOCALES												
...CHLAMYDOMONADACEAE	--	-	--	-	--	-	36	1	--	-	--	-
....CARTERIA	--	-	--	-	*	0	--	-	--	-	--	-
....CHLAMYDOMONAS	*	0	68	1	3700	3	400	6	23	3	*	0
....CHLOROGONIUM	*	0	--	-	--	-	--	-	--	-	--	-
...PHACOTACEAE												
....PHACOTUS	--	-	--	-	750	1	--	-	--	-	--	-
...VOLVOCACEAE												
....PANDORINA	3000	9	--	-	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

06774000 PLATTE RIVER NEAR DUNCAN, NE--Continued

PHYTOPLANKTON ANALYSES, JUNE 1978 TO AUGUST 1979

DATE TIME	AUG 3,78 1430		AUG 28,78 1300		SEP 25,78 1600		DEC 1,78 0900		JAN 17,79 1545		MAR 13,79 1400	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHRYSOPHYTA												
.BACILLARIOPHYCEAE												
..CENTRALES												
...COSCINODISCACEAE												
....CYCLOTELLA	210	1	340	3	6000	5	250	4	46	6	870#	28
....MELOSIRA	320	1	510	5	2700	2	470	7	23	3	100	3
....STEPHANODISCUS	320	1	--	-	--	-	73	1	--	-	--	-
..PENNALES												
...ACHNANTHACEAE												
....COCCONEIS	--	-	68	1	--	-	--	-	8	1	*	0
...CYMBELLACEAE												
....CYMBELLA	--	-	--	-	--	-	--	-	--	-	76	2
....EPITHEMIA	*	0	--	-	--	-	--	-	--	-	--	-
....RHOPALODIA	--	-	--	-	--	-	73	1	--	-	--	-
...DIATOMACEAE												
....DIATOMA	--	-	--	-	--	-	--	-	--	-	25	1
...FRAGILARIACEAE												
....ASTERIONELLA	--	-	--	-	--	-	--	-	61	8	300	10
....FRAGILARIA	--	-	--	-	1200	1	290	5	290#	36	650#	21
....SYNEDRA	--	-	*	0	--	-	150	2	15	2	50	2
...GOMPHONEMATACEAE												
....GOMPHONEMA	--	-	--	-	--	-	73	1	8	1	*	0
...MERIDIONACEAE												
....MERIDION	--	-	--	-	--	-	--	-	8	1	--	-
...NAVICULACEAE												
....NAVICULA	--	-	980	9	*	0	220	3	8	1	190	6
...NITZSCHIACEAE												
....NITZSCHIA	210	1	300	3	8000	7	360	6	190#	24	88	3
...SURIRELLACEAE												
....SURIRELLA	--	-	--	-	--	-	--	-	--	-	*	0
.CHRYSOPHYCEAE												
..CHRYSOMONADALES												
...OCHROMONADACEAE												
....OCHROMONAS	--	-	--	-	--	-	180	3	--	-	--	-
CRYPTOPHYTA (CRYPTOMONADS)												
.CRYPTOPHYCEAE												
..CRYPTOMONADALES												
...CRYPTOMONADACEAE												
....CRYPTOMONAS	--	-	--	-	*	0	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)												
.CYANOPHYCEAE												
..HORMOGONALES												
...OSCILLATORIACEAE												
....PHORMIDIUM	--	-	--	-	4000	3	--	-	--	-	--	-
..CHROOCOCCALES												
...CHROOCOCCACEAE												
....AGMENELLUM	--	-	3600#	32	--	-	--	-	--	-	--	-
....ANACYSTIS	1400	4	270	2	48000#	43	400	7	8	1	50	2
..HORMOGONALES												
...NOSTOCACEAE												
....ANABAENA	--	-	--	-	--	-	--	-	46	6	38	1
....APHANIZOMENON	--	-	--	-	9700	9	--	-	--	-	--	-
...OSCILLATORIACEAE												
....OSCILLATORIA	--	-	--	-	2000	2	400	6	--	-	--	-
....SPIRULINA	--	-	--	-	--	-	--	-	--	-	*	0
..CHROOCOCCALES												
...CHROOCOCCACEAE												
....DACTYLOCOCCOPSIS	210	1	--	-	--	-	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)												
.EUGLENOPHYCEAE												
..EUGLENALES												
...EUGLENACEAE												
....EUGLENA	*	0	--	-	--	-	--	-	--	-	*	0
....TRACHELOMONAS	--	-	--	-	--	-	--	-	--	-	180	6
PYRRHOPHYTA (FIRE ALGAE)												
.DINOPHYCEAE												
..PERIDINIALES												
...GLENODINIACEAE												
....GLENODINIUM	--	-	--	-	--	-	--	-	--	-	*	0

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

PLATTE RIVER BASIN

06774000 PLATTE RIVER NEAR DUNCAN, NE--Continued

PHYTOPLANKTON ANALYSES, JUNE 1978 TO AUGUST 1979

DATE	MAY 8,79		JUN 12,79		JUN 29,79		JUL 6,79		AUG 1,79	
TIME	1145		1355		1430		1130		1045	
TOTAL CELLS/ML	21000		33000		47000		82000		310000	
DIVERSITY: DIVISION	0.9		1.1		1.5		1.0		1.3	
.CLASS	0.9		1.1		1.5		1.0		1.3	
..ORDER	1.7		1.7		2.1		1.2		1.7	
...FAMILY	2.4		2.7		2.4		1.9		2.7	
....GENUS	2.8		3.3		2.9		2.8		3.5	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)										
.CHLOROPHYCEAE										
..CHLOROCOCCALES										
...CHARACIACEAE										
....SCHROEDERIA	--	-	--	-	--	-	--	-	--	-
...COELASTRACEAE										
....COELASTRUM	--	-	600	2	--	-	--	-	7000	2
...HYDRODICTYACEAE										
....PEDIASTRUM	--	-	3200	10	--	-	--	-	--	-
...MICRACTINIACEAE										
....GOLENKINIA	--	-	--	-	*	0	--	-	--	-
....MICRACTINIUM	720	3	600	2	--	-	5300	7	24000	8
...OOCYSTACEAE										
....ANKISTRODESMUS	200	1	800	2	1500	3	1300	2	13000	4
....CHODATELLA	--	-	*	0	--	-	--	-	*	0
....DICTYOSPHAERIUM	--	-	400	1	440	1	--	-	33000	11
....FRANCEIA	--	-	200	1	--	-	--	-	--	-
....KIRCHNERIELLA	--	-	200	1	--	-	--	-	4900	2
....OOCYSTIS	--	-	1600	5	990	2	--	-	9000	3
....SELENASTRUM	--	-	--	-	--	-	800	1	--	-
....TETRAEDRON	--	-	--	-	--	-	*	0	--	-
....TREUBARIA	--	-	--	-	*	0	800	1	*	0
....WESTELLA	--	-	--	-	440	1	1100	1	--	-
...SCENEDESMACEAE										
....ACTINASTRUM	2500	12	2100	6	5500	12	13000#	16	--	-
....CORONASTRUM	--	-	--	-	--	-	--	-	11000	4
....CRUCIGENIA	--	-	400	1	--	-	--	-	--	-
....SCENEDESMUS	2300	11	6100#	19	7700#	17	33000#	41	83000#	27
....TETRASTRUM	--	-	1200	4	440	1	4300	5	5600	2
..TETRASPORALES										
...COCCOMYXACEAE										
....ELAKATOTHRIX	--	-	--	-	--	-	--	-	--	-
...PALMELLACEAE										
....SPHAEROCYSTIS	--	-	--	-	--	-	--	-	--	-
...TETRASPORACEAE										
....TETRASPORA	--	-	--	-	--	-	--	-	--	-
..VOLVOCALES										
...CHLAMYDOMONADACEAE	--	-	--	-	--	-	--	-	--	-
....CARTERIA	--	-	--	-	--	-	--	-	*	0
....CHLAMYDOMONAS	720	3	3900	12	1600	4	800	1	--	-
....CHLOROGONIUM	--	-	--	-	--	-	--	-	--	-
...PHACOTACEAE										
....PHACOTUS	--	-	--	-	--	-	--	-	*	0
...VOLVOCACEAE										
....PANDORINA	--	-	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

06774000 PLATTE RIVER NEAR DUNCAN, NE--Continued

PHYTOPLANKTON ANALYSES, JUNE 1978 TO AUGUST 1979

DATE TIME	MAY 8,79 1145		JUN 12,79 1355		JUN 29,79 1430		JUL 6,79 1130		AUG 1,79 1045	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHRYSOPHYTA										
.BACILLARIOPHYCEAE										
..CENTRALES										
...COSCINODISCACEAE										
....CYCLOTELLA	5000#	24	8900#	27	3900	8	11000	13	33000	11
....MELOSIRA	*	0	*	0	--	-	1900	2	--	-
....STEPHANODISCUS	--	-	--	-	--	-	--	-	--	-
..PENNALES										
...ACHNANTHACEAE										
....COCCONEIS	--	-	--	-	--	-	--	-	--	-
...CYMBELLACEAE										
....CYMBELLA	--	-	--	-	--	-	--	-	--	-
....EPITHEMIA	--	-	--	-	--	-	--	-	--	-
....RHOPALODIA	--	-	--	-	--	-	--	-	--	-
...DIATOMACEAE										
....DIATOMA	--	-	--	-	--	-	--	-	--	-
...FRAGILARIACEAE										
....ASTERIONELLA	720	3	--	-	--	-	--	-	--	-
....FRAGILARIA	5500#	26	*	0	2700	6	1900	2	22000	7
....SYNEDRA	--	-	--	-	--	-	--	-	--	-
...GOMPHONEMATACEAE										
....GOMPHONEMA	--	-	--	-	--	-	--	-	--	-
...MERIDIONACEAE										
....MERIDION	--	-	--	-	--	-	--	-	--	-
...NAVICULACEAE										
....NAVICULA	*	0	*	0	--	-	--	-	--	-
...NITZSCHIACEAE										
....NITZSCHIA	3200#	15	700	2	1400	3	1100	1	4200	1
...SURIRELLACEAE										
....SURIRELLA	--	-	--	-	--	-	--	-	--	-
.CHRYSOPHYCEAE										
..CHRYSOMONADALES										
...OCHROMONADACEAE										
....OCHROMONAS	--	-	--	-	--	-	--	-	--	-
CRYPTOPHYTA (CRYPTOMONADS)										
.CRYPTOPHYCEAE										
..CRYPTOMONADALES										
...CRYPTOMONADACEAE										
....CRYPTOMONAS	--	-	--	-	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)										
.CYANOPHYCEAE										
..HORMOGONALES										
...OSCILLATORIACEAE										
....PHORMIDIUM	--	-	--	-	--	-	--	-	--	-
..CHROOCOCCALES										
...CHROOCOCCACEAE										
....AGMENELLUM	--	-	--	-	--	-	--	-	8300	3
....ANACYSTIS	--	-	1600	5	1900	4	5100	6	36000	12
..HORMOGONALES										
...NOSTOCACEAE										
....ANABAENA	--	-	--	-	--	-	--	-	--	-
....APHANIZOMENON	--	-	--	-	--	-	--	-	7700	2
...OSCILLATORIACEAE										
....OSCILLATORIA	--	-	--	-	18000#	38	--	-	--	-
....SPIRULINA	--	-	--	-	--	-	--	-	--	-
..CHROOCOCCALES										
...CHROOCOCCACEAE										
....DACTYLOCOCCOPSIS	--	-	--	-	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)										
.EUGLENOPHYCEAE										
..EUGLENALES										
...EUGLENACEAE										
....EUGLENA	*	0	--	-	*	0	--	-	--	-
....TRACHELOMONAS	--	-	--	-	--	-	--	-	*	0
PYRRHOPHYTA (FIRE ALGAE)										
.DINOPHYCEAE										
..PERIDINIALES										
...GLENODINIACEAE										
....GLENODINIUM	--	-	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

06774000 PLATTE RIVER NEAR DUNCAN, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	LENGTH OF EXPO- SURE (DAYS) (00022)	BIOMASS CHLORO- PHYLL RATIO PERI- PHYTON (UNITS) (70950)	CHLOR-A PERI- PHYTON CHROMO- GRAPHIC FLUOROM (MG/M2) (70957)	CHLOR-B PERI- PHYTON CHROMO- GRAPHIC FLUOROM (MG/M2) (70958)	PERI- PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M (00573)	PERI- PHYTON BIOMASS ASH WEIGHT G/SQ M (00572)
APR						
25...	27	39.1	20.2	.000	2.76	1.97
MAY						
23...	28	344	.930	.160	.790	.470

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)
AUG					
14...	0800	860	7.4	17.0	9.0
14...	1000	860	8.0	16.5	9.9
14...	1200	920	7.9	17.0	10.2
14...	1400	1080	8.0	19.5	9.8
14...	1600	958	7.2	22.5	9.4
14...	1800	930	8.0	22.0	9.3
14...	2000	910	7.9	20.0	8.9
AUG					
14...	2200	932	8.0	18.0	8.7
14...	2400	916	7.8	17.0	8.9
15...	0200	915	7.7	16.5	9.1
15...	0400	890	7.6	16.0	9.6
15...	0600	880	7.5	16.0	9.7
15...	0800	863	7.5	17.0	9.7

06774000 PLATTE RIVER NEAR DUNCAN, NE--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	795	791	848	890	887	687	572	608	585	775	745	848
2	795	767	845	890	896	618	572	611	587	800	845	850
3	798	768	845	895	875	632	570	594	608	745	845	848
4	800	790	845	885	886	648	572	595	605	725	847	850
5	800	770	848	888	877	665	635	665	568	798	845	850
6	799	761	846	888	883	628	634	668	850	778	828	850
7	800	765	848	888	891	628	625	677	860	599	828	852
8	800	770	845	888	880	620	620	678	865	722	800	848
9	799	767	849	885	892	650	625	669	857	752	835	852
10	799	769	842	885	879	675	628	675	865	700	800	849
11	800	774	842	880	882	638	630	665	860	718	795	853
12	772	763	822	890	876	620	620	598	865	833	790	849
13	795	767	827	893	877	625	623	597	865	837	818	876
14	800	768	759	889	874	625	623	438	865	838	819	877
15	800	769	823	891	870	650	635	443	666	837	822	878
16	805	756	837	887	873	640	638	439	654	835	825	847
17	800	751	831	879	880	580	629	598	658	728	828	875
18	800	755	827	859	870	580	628	599	548	850	824	876
19	802	750	816	853	867	578	624	596	534	825	805	870
20	790	749	820	862	870	555	635	590	548	825	825	880
21	799	757	827	864	865	555	638	648	655	825	830	874
22	777	754	822	867	861	552	634	591	545	819	830	875
23	775	752	825	861	858	555	602	598	658	850	820	865
24	770	755	848	868	853	557	629	597	538	827	833	873
25	775	755	839	857	850	560	638	595	855	858	835	898
26	783	753	825	863	855	585	642	595	548	858	829	899
27	777	749	820	871	825	575	647	620	535	850	829	897
28	780	752	820	886	835	555	642	619	538	850	842	895
29	780	757	760	883	---	585	637	620	538	858	837	895
30	775	751	838	892	---	550	570	621	545	858	837	895
31	779	---	827	890	---	602	---	621	---	825	825	---

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18.0	16.0	5.0	3.0	.0	4.0	5.0	17.0	20.0	30.0	30.0	30.0
2	17.0	14.0	4.0	3.0	.0	5.0	5.0	18.0	20.0	30.0	27.0	28.0
3	18.0	14.0	4.0	2.0	.0	3.0	5.0	14.0	22.0	30.0	28.0	28.0
4	18.0	12.0	5.0	.0	.0	3.0	5.0	12.0	24.0	30.0	28.0	28.0
5	18.0	10.0	5.0	.0	.0	4.0	5.0	15.0	24.0	30.0	30.0	27.0
6	17.0	10.0	4.0	.0	.0	5.0	5.0	18.0	24.0	30.0	30.0	27.0
7	17.0	10.0	4.0	.0	.0	5.0	5.0	18.0	25.0	28.0	30.0	27.0
8	17.0	10.0	4.0	.0	.0	6.0	5.0	18.0	25.0	30.0	28.0	27.0
9	17.0	10.0	5.0	.0	.0	5.0	5.0	18.0	25.0	27.0	26.0	28.0
10	18.0	10.0	5.0	.0	.0	5.0	5.0	19.0	25.0	29.0	28.0	26.0
11	18.0	7.0	4.0	.0	.0	5.0	7.0	19.0	28.0	29.0	28.0	26.0
12	18.0	7.0	4.0	.0	.0	5.0	10.0	19.0	28.0	27.0	28.0	25.0
13	17.0	7.0	4.0	.0	.0	5.0	12.0	18.0	28.0	29.0	28.0	26.0
14	17.0	7.0	4.0	.0	.0	5.0	16.0	18.0	30.0	30.0	25.0	24.0
15	18.0	8.0	5.0	.0	.0	5.0	16.0	18.0	30.0	28.0	25.0	26.0
16	17.0	9.0	4.0	.0	.0	5.0	16.0	18.0	30.0	30.0	28.0	27.0
17	17.0	10.0	4.0	.0	.0	5.0	16.0	20.0	28.0	29.0	30.0	27.0
18	18.0	10.0	4.0	.0	.0	5.0	16.0	20.0	27.0	30.0	30.0	28.0
19	17.0	8.0	4.0	.0	.0	5.0	18.0	20.0	25.0	29.0	30.0	26.0
20	17.0	8.0	4.0	.0	.0	5.0	18.0	20.0	25.0	29.0	30.0	26.0
21	18.0	7.0	4.0	.0	.0	5.0	18.0	20.0	24.0	29.0	30.0	24.0
22	17.0	10.0	4.0	.0	.0	5.0	19.0	20.0	24.0	29.0	28.0	24.0
23	17.0	8.0	5.0	.0	.0	5.0	20.0	20.0	24.0	29.0	28.0	23.0
24	16.0	10.0	4.0	.0	.0	5.0	18.0	20.0	24.0	30.0	28.0	24.0
25	15.0	8.0	4.0	.0	6.0	5.0	18.0	20.0	24.0	29.0	30.0	23.0
26	15.0	7.0	4.0	.0	7.0	5.0	20.0	20.0	28.0	30.0	30.0	21.0
27	15.0	7.0	4.0	.0	5.0	5.0	20.0	20.0	28.0	28.0	30.0	24.0
28	15.0	6.0	4.0	.0	5.0	5.0	20.0	21.0	28.0	29.0	28.0	24.0
29	16.0	6.0	5.0	.0	---	5.0	20.0	21.0	30.0	29.0	29.0	23.0
30	16.0	6.0	4.0	.0	---	5.0	20.0	20.0	30.0	29.0	29.0	24.0
31	16.0	---	5.0	.0	---	5.0	---	20.0	---	30.0	29.0	---

06774000 PLATTE RIVER NEAR DUNCAN, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)
OCT							
24...	1200	780	16.0	23	48	--	--
DEC							
01...	0900	1100	1.0	74	220	--	--
MAR							
13...	1300	6430	2.0	1620	28100	8	9
28...	1500	3160	12.0	378	3230	--	--
APR							
12...	0945	2530	8.0	304	2080	--	--
MAY							
08...	1110	1650	13.0	235	1050	--	--
JUN							
12...	1300	764	28.0	180	371	--	--
29...	1325	5100	28.5	195	2690	--	--
JUL							
06...	1010	4000	19.0	153	1650	--	--
AUG							
01...	1245	672	28.5	132	240	--	--
SEP							
25...	1125	251	17.5	168	114	--	--

DATE	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70344)	SED. SUSP. FALL DIAM. % FINER THAN .500 MM (70345)	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM (70346)
OCT						
24...	--	33	52	74	100	--
DEC						
01...	--	44	--	--	--	--
MAR						
13...	9	--	--	--	--	--
28...	--	72	83	86	94	100
APR						
12...	--	8	10	15	52	96
MAY						
08...	--	46	55	57	67	95
JUN						
12...	--	43	--	--	--	--
29...	--	38	58	75	88	90
JUL						
06...	--	44	--	--	--	--
AUG						
01...	--	92	95	100	--	--
SEP						
25...	--	36	--	--	--	--

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	NUMBER OF SAM-PLING POINTS (00063)	BED MAT. FALL DIAM. % FINER THAN .062 MM (80158)	BED MAT. FALL DIAM. % FINER THAN .125 MM (80159)	BED MAT. FALL DIAM. % FINER THAN .250 MM (80160)	BED MAT. FALL DIAM. % FINER THAN .500 MM (80161)	BED MAT. FALL DIAM. % FINER THAN 1.00 MM (80162)	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM (80171)	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM (80172)
OCT												
24...	1200	780	8	0	1	10	47	76	88	96	100	--
DEC												
01...	0900	1100	12	--	0	7	29	70	87	97	100	--
MAR												
13...	1300	6430	3	--	0	5	52	59	78	92	99	100
28...	1500	3160	3	--	0	11	57	72	86	96	100	--
MAY												
08...	1110	1650	5	--	0	10	41	77	89	96	99	100
JUN												
12...	1300	764	8	--	0	20	65	82	89	95	100	--
29...	1325	5100	5	0	1	9	33	70	88	97	100	--
JUL												
06...	1010	4000	4	--	0	3	24	64	80	92	98	100
AUG												
01...	1245	672	12	--	0	8	52	73	85	94	98	100
SEP												
25...	1125	251	6	--	0	9	50	80	90	97	100	--

06775500 MIDDLE LOUP RIVER AT DUNNING, NE

LOCATION.--Lat 41°49'50", long 100°06'00", in NW1/4SE1/4 sec.33, T.22 N., R.24 W., Blaine County, Hydrologic Unit 10210001, on left bank just upstream from bridge on State Highway 2 at northeast corner of Dunning, 1 mi (2 km) upstream from Dismal River.

DRAINAGE AREA.--1,850 mi^2 (4,790 km^2), approximately, of which about 80 mi^2 (210 km^2) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1945 to current year.

REVISED RECORDS.--WDR NE-72: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 2,607.14 ft (794.656 m) National Geodetic Vertical Datum of 1929. Prior to Sept. 12, 1946, nonrecording gage, and Sept. 12, 1946, to Sept. 30, 1962, water-stage recorder at site 0.2 mi (0.3 km) upstream at datum 0.03 ft (0.009 m) higher.

REMARKS.--Records good except those for winter period, which are poor.

AVERAGE DISCHARGE.--34 years, 399 ft^3/s (11.30 m^3/s), 289,100 acre-ft/yr (0.356 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,020 ft^3/s (28.9 m^3/s) Apr. 20, 1971, gage height, 2.50 ft (0.762 m); maximum gage height, 7.02 ft (2.140 m) Mar. 31, 1949, backwater from ice, site and datum then in use; minimum daily discharge, 100 ft^3/s (2.83 m^3/s) Dec. 5, 6, 1950.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 637 ft^3/s (18.0 m^3/s) Apr. 12, gage height, 1.86 ft (0.567 m); maximum gage height, 3.95 ft (1.204 m) Feb. 21, backwater from ice; minimum daily discharge, 280 ft^3/s (7.93 m^3/s) Dec. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	410	397	430	290	350	450	487	412	418	429	368	392
2	420	390	350	300	340	460	470	413	411	419	375	377
3	425	403	340	310	340	420	473	419	400	409	366	371
4	425	401	360	320	350	380	462	399	388	458	362	361
5	415	403	330	330	370	420	452	404	377	485	365	365
6	415	404	320	350	360	448	453	418	371	458	362	366
7	415	400	310	370	370	442	457	420	439	420	354	368
8	415	392	300	390	350	458	453	472	425	406	359	396
9	410	400	280	380	360	475	451	503	456	402	349	363
10	415	429	370	360	380	467	466	471	443	397	340	360
11	415	400	540	380	370	437	548	426	408	391	345	428
12	415	385	560	370	390	494	530	445	403	391	346	462
13	410	409	500	360	400	578	462	476	396	387	352	451
14	400	414	540	340	420	580	464	473	385	376	356	410
15	400	364	500	330	400	548	490	452	391	400	366	393
16	390	371	480	350	380	541	496	436	390	397	363	390
17	398	390	520	370	400	518	486	436	421	411	357	392
18	393	394	560	380	430	575	475	456	424	390	368	390
19	395	360	500	390	470	532	484	442	416	375	398	392
20	401	340	480	390	520	510	461	424	413	377	416	384
21	401	320	500	420	500	581	438	416	381	375	396	388
22	429	330	480	430	520	601	433	409	390	387	382	382
23	407	340	460	400	480	577	431	405	400	382	374	377
24	392	358	480	430	500	547	433	393	400	405	387	380
25	414	373	500	420	520	504	442	391	471	403	415	379
26	412	414	460	400	580	473	431	398	412	384	477	380
27	398	415	430	380	540	471	435	394	480	406	406	386
28	400	440	410	350	460	443	422	399	494	407	401	390
29	398	403	380	360	---	478	410	418	436	412	400	383
30	402	425	350	360	---	476	394	524	416	386	388	374
31	398	---	320	350	---	459	---	435	---	369	382	---
TOTAL	12633	11664	13340	11360	11850	15343	13789	13379	12455	12494	11675	11630
MEAN	408	389	430	366	423	495	460	432	415	403	377	388
MAX	429	440	560	430	580	601	548	524	494	485	477	462
MIN	390	320	280	290	340	380	394	391	371	369	340	360
AC-FT	25060	23140	26460	22530	23500	30430	27350	26540	24700	24780	23160	23070

CAL YR 1978 TOTAL 149755 MEAN 410 MAX 693 MIN 280 AC-FT 297000
WTR YR 1979 TOTAL 151612 MEAN 415 MAX 601 MIN 280 AC-FT 300700

06775500 MIDDLE LOUP RIVER AT DUNNING, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1950-56, 1965 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1949 to September 1956, October 1965 to current year.
SUSPENDED SEDIMENT DISCHARGE: March 1950 to September 1952, October 1953 to September 1954.

INSTRUMENTATION.--Temperature recorder from Oct. 1, 1965.

EXTREMES FOR PERIOD OF RECORD.--
WATER TEMPERATURES: Maximum, 34.0°C June 21, 1956; minimum, 0.0°C on many days during winter periods.
SEDIMENT CONCENTRATIONS: Maximum daily, 3,800 mg/L Feb. 23, 1952; minimum daily, 56 mg/L Jan. 23, 1952.
SEDIMENT LOADS: Maximum daily, 5,160 tons (4,700 tonnes) Mar. 31, 1952; minimum daily, 21 tons (19 tonnes) Jan. 23, 1952.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 29.0°C July 3, 12, Aug. 8; minimum, 0.5°C on many days during winter period.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	19.0	12.0	13.0	7.0	3.0	.5	.5	.5	.5	.5	1.0	1.0
2	15.5	13.5	14.5	9.0	.5	.5	.5	.5	.5	.5	1.0	1.0
3	14.5	10.0	14.0	9.5	.5	.5	.5	.5	.5	.5	1.0	1.0
4	12.0	9.0	13.5	9.0	.5	.5	.5	.5	.5	.5	1.5	1.5
5	12.0	6.5	13.0	8.5	.5	.5	.5	.5	.5	.5	3.5	1.5
6	13.5	6.5	9.0	5.5	.5	.5	.5	.5	.5	.5	9.0	3.5
7	13.5	8.0	10.0	5.5	.5	.5	.5	.5	.5	.5	8.0	5.5
8	15.5	9.0	11.0	7.0	.5	.5	.5	.5	.5	.5	7.0	5.5
9	15.5	11.0	11.0	7.0	.5	.5	.5	.5	.5	.5	8.0	6.5
10	15.5	10.0	8.5	3.5	.5	.5	.5	.5	.5	.5	6.5	4.0
11	15.5	11.0	3.5	1.5	.5	.5	.5	.5	.5	.5	9.0	5.5
12	13.5	10.0	3.0	1.5	.5	.5	.5	.5	.5	.5	9.5	8.0
13	11.0	6.5	5.5	3.0	.5	.5	.5	.5	.5	.5	10.0	8.5
14	11.5	6.0	3.0	1.5	.5	.5	.5	.5	.5	.5	9.0	6.5
15	12.0	8.0	5.0	2.0	.5	.5	.5	.5	.5	.5	9.0	5.5
16	11.0	6.5	6.0	4.5	.5	.5	.5	.5	.5	.5	9.0	7.0
17	13.5	6.5	6.5	3.5	.5	.5	.5	.5	.5	.5	12.0	9.0
18	13.5	9.0	5.0	1.5	.5	.5	.5	.5	.5	.5	12.0	6.5
19	14.5	8.5	1.0	1.0	.5	.5	.5	.5	.5	.5	9.0	5.5
20	14.5	9.5	.5	.5	.5	.5	.5	.5	.5	.5	9.5	6.0
21	13.5	11.5	.5	.5	.5	.5	.5	.5	.5	.5	9.5	8.0
22	13.0	7.0	.5	.5	.5	.5	.5	.5	.5	.5	8.0	6.5
23	10.0	5.5	.5	.5	.5	.5	.5	.5	.5	.5	6.5	5.5
24	12.0	6.5	3.5	.5	.5	.5	.5	.5	.5	.5	8.5	5.5
25	11.0	8.0	3.0	1.5	.5	.5	.5	.5	1.0	1.0	8.5	7.0
26	11.0	5.5	2.0	.5	.5	.5	.5	.5	1.0	1.0	9.0	7.0
27	11.5	6.5	3.0	1.0	.5	.5	.5	.5	1.0	1.0	9.0	7.0
28	12.0	6.5	1.5	1.0	.5	.5	.5	.5	1.0	1.0	11.5	7.0
29	13.0	7.0	3.5	1.0	.5	.5	.5	.5	---	---	11.5	9.5
30	11.5	9.0	3.5	1.0	.5	.5	.5	.5	---	---	9.5	8.0
31	12.0	8.0	---	---	.5	.5	.5	.5	---	---	8.5	7.0
MONTH	19.0	5.5	14.5	.5	3.0	.5	.5	.5	1.0	.5	12.0	1.0

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	8.5	7.0	12.0	9.0	20.5	16.0	26.5	21.0	28.0	19.5	25.0	20.5
2	8.5	7.0	10.5	9.5	20.0	17.0	25.5	23.0	28.0	20.0	24.5	19.0
3	9.0	8.0	11.0	8.5	21.5	17.0	29.0	23.5	26.5	21.0	25.0	20.0
4	9.0	6.5	14.0	8.5	24.0	19.5	26.5	22.0	28.0	20.5	24.5	20.0
5	8.5	8.0	15.0	10.5	24.5	20.0	22.0	18.5	28.0	23.0	26.0	20.0
6	8.5	6.0	19.0	13.5	24.5	19.0	19.0	17.0	28.0	21.5	24.5	19.5
7	11.5	7.0	18.0	14.0	23.5	19.0	23.5	17.0	28.5	22.0	24.5	18.5
8	11.0	9.0	15.5	10.0	19.0	16.5	26.5	21.0	29.0	22.0	24.5	19.0
9	11.5	8.5	10.0	8.0	17.0	15.5	26.5	23.0	28.0	23.0	24.0	20.0
10	11.0	8.0	8.0	5.5	20.0	13.5	28.0	23.5	24.5	20.0	25.0	20.0
11	7.0	6.0	12.0	5.5	22.0	18.0	28.0	23.5	25.5	18.5	23.5	19.0
12	6.5	5.5	15.5	11.5	25.5	20.0	29.0	24.0	25.0	18.5	20.0	16.5
13	9.5	5.0	15.0	12.0	25.5	22.0	28.0	24.5	23.0	19.5	18.0	14.5
14	12.0	8.5	16.0	13.0	25.5	21.5	26.5	22.0	20.0	17.0	18.5	14.5
15	13.5	10.0	16.5	13.5	24.5	21.5	25.5	22.0	17.0	15.0	20.0	15.0
16	15.5	12.0	19.5	14.0	24.5	21.5	24.5	20.5	21.5	15.0	20.0	15.5
17	15.0	13.5	19.0	15.0	23.5	18.0	21.0	19.0	26.0	19.0	21.0	15.5
18	14.5	13.5	16.0	14.0	18.0	16.5	23.5	19.0	24.0	21.0	21.0	17.0
19	15.5	13.5	18.5	13.0	19.5	16.5	26.5	19.5	22.0	19.5	20.0	16.0
20	14.0	11.0	18.5	14.5	20.5	16.0	28.0	20.5	23.0	19.0	19.0	15.5
21	14.0	10.5	17.0	14.0	24.5	18.5	28.0	21.0	24.0	18.5	18.5	14.5
22	14.5	11.0	18.5	15.0	24.0	19.5	28.0	22.0	23.0	18.5	19.0	14.0
23	15.5	11.5	18.5	14.0	24.0	19.5	28.0	22.0	24.5	18.5	19.5	15.0
24	14.0	11.5	20.5	14.5	23.0	20.0	25.5	21.0	24.0	19.0	19.0	16.0
25	12.0	10.0	20.5	15.0	24.5	19.0	28.0	20.0	22.0	19.0	19.0	15.0
26	11.0	9.0	21.0	17.0	26.5	20.0	27.0	21.5	23.5	16.5	19.5	15.0
27	10.0	8.0	24.0	17.0	26.0	21.0	28.0	21.5	24.0	19.0	20.0	16.0
28	9.5	7.0	23.5	19.0	26.0	21.0	26.5	22.0	23.0	19.5	19.5	15.0
29	11.5	7.0	22.0	19.0	26.5	22.0	25.0	23.0	25.5	19.0	18.5	15.0
30	13.0	9.5	19.0	16.0	26.0	22.0	26.5	21.0	26.0	21.0	19.0	14.5
31	---	---	18.0	15.0	---	---	26.5	21.0	26.5	20.5	---	---
MONTH	15.5	5.0	24.0	5.5	26.5	13.5	29.0	17.0	29.0	15.0	26.0	14.0

06775900 DISMAL RIVER NEAR THEDFORD, NE
(Hydrologic bench-mark station and Radiochemical program)

LOCATION.--Lat 41°46'45", long 100°31'30", in SE1/4NW1/4 sec.23, T.21 N., R.28 W., Thomas County, Hydrologic Unit 10210002, on right bank 25 ft (8 m) upstream from bridge on U.S. Highway 83 (revised), 2 mi (3 km) upstream from boundary of Nebraska National Forest (Bessey Division), and 14 mi (23 km) south of Thedford.

DRAINAGE AREA.--960 mi² (2,490 km²), approximately, of which about 30 mi² (78 km²) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1966 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,800.13 ft (853.480 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good.

AVERAGE DISCHARGE.--13 years, 191 ft³/s (5.409 m³/s), 138,400 acre-ft/yr (0.171 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 335 ft³/s (9.49 m³/s) July 28, 1967, gage height, 2.73 ft (0.832 m); maximum gage height, 2.94 ft (0.896 m) Dec. 31, 1968, backwater from ice; minimum daily discharge, 156 ft³/s (4.42 m³/s) Jan. 27, 1972.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 268 ft³/s (7.59 m³/s) July 28, gage height, 2.06 ft (0.628 m); minimum daily, 158 ft³/s (4.47 m³/s) Dec. 8, 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	185	194	191	161	175	196	200	188	190	206	198	191
2	188	196	184	161	170	196	200	193	185	203	201	192
3	186	199	172	175	185	186	200	191	190	201	193	189
4	182	199	173	180	186	188	197	194	192	205	195	195
5	182	199	173	172	185	200	199	192	191	210	192	190
6	182	194	168	172	188	213	195	201	193	203	190	187
7	185	189	163	179	185	209	193	192	206	198	191	185
8	184	189	158	176	186	208	198	184	195	200	190	190
9	190	190	158	182	183	204	193	186	199	200	192	186
10	188	191	172	180	191	195	197	189	195	197	190	188
11	190	179	167	185	200	202	198	199	192	195	188	198
12	191	178	170	180	194	211	194	200	196	195	184	190
13	190	182	173	175	195	210	186	207	195	195	186	185
14	183	182	174	170	200	212	190	204	194	193	184	190
15	194	182	174	165	196	215	199	190	194	196	182	185
16	196	194	166	175	176	214	202	194	196	196	184	182
17	194	186	166	186	182	214	202	191	197	211	190	184
18	196	191	174	190	182	218	202	194	200	195	191	187
19	199	186	178	198	187	210	198	186	195	196	194	186
20	198	179	170	198	190	212	195	194	199	197	196	188
21	198	176	166	194	187	219	192	186	195	195	188	188
22	201	174	166	197	197	221	196	191	197	198	188	189
23	197	182	169	200	188	207	195	192	198	194	185	188
24	197	190	173	195	192	201	198	191	200	197	187	190
25	201	192	167	200	194	201	189	190	204	194	194	190
26	197	188	168	195	203	202	188	190	209	194	191	190
27	192	180	171	190	201	201	185	190	215	198	188	191
28	196	180	168	195	196	201	187	194	209	232	190	191
29	194	191	166	200	---	209	190	199	201	215	187	191
30	196	186	168	190	---	205	190	218	202	201	190	191
31	190	---	174	179	---	200	---	194	---	198	191	---
TOTAL	5942	5618	5280	5695	5294	6380	5848	6004	5924	6208	5890	5667
MEAN	192	187	170	184	189	206	195	194	197	200	190	189
MAX	201	199	191	200	203	221	202	218	215	232	201	198
MIN	182	174	158	161	170	186	185	184	185	193	182	182
AC-FT	11790	11140	10470	11300	10500	12650	11600	11910	11750	12310	11680	11240

CAL YR 1978 TOTAL 69642 MEAN 191 MAX 228 MIN 158 AC-FT 138100
WTR YR 1979 TOTAL 69750 MEAN 191 MAX 232 MIN 158 AC-FT 138300

06775900 DISMAL RIVER NEAR THEDFORD, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water year 1966 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (JTU) (00070)	OXYGEN, DIS-SOLVED (MG/L) (00300)	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML) (31501)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
NOV										
29...	0930	214	167	7.2	4.5	--	12.4	156	K25	88
JAN										
09...	0930	180	167	7.2	.5	20	12.9	120	110	K80
MAR										
15...	1020	217	178	7.4	7.0	--	10.7	220	83	84
MAY										
15...	0910	191	195	7.5	14.0	--	9.4	550	80	K52
JUL										
17...	0857	207	172	7.3	18.5	--	8.7	1100	740	870
SEP										
19...	0915	187	179	7.1	15.0	--	8.2	1200	300	260

K Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)
NOV										
29...	72	0	23	3.5	6.5	.3	4.9	75	10	.9
JAN										
09...	69	0	22	3.5	7.1	.4	4.9	75	7.3	1.2
MAR										
15...	79	0	25	4.1	7.7	.4	5.0	88	12	1.2
MAY										
15...	74	0	23	3.9	7.5	.4	4.8	77	7.1	1.3
JUL										
17...	66	0	21	3.3	6.4	.3	4.8	76	11	1.2
SEP										
19...	72	0	23	3.5	7.2	.4	5.0	77	12	.9

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	ARSENIC TOTAL (UG/L AS AS) (01002)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)
NOV										
29...	.3	55	155	149	.21	89.6	.54	.20	7	0
JAN										
09...	.2	57	157	148	.21	76.3	.49	.21	--	--
MAR										
15...	.3	51	152	157	.21	89.1	.45	.27	--	--
MAY										
15...	.3	52	158	146	.21	81.5	.37	.19	5	0
JUL										
17...	.3	56	155	150	.21	86.6	.33	.10	--	--
SEP										
19...	.3	59	153	157	.21	77.3	.38	.16	--	--

DATE	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG) (01077)
NOV										
29...	0	0	2	790	9	60	.0	1	10	0
JAN										
09...	--	--	--	--	--	--	--	--	--	--
MAR										
15...	--	--	--	--	--	--	--	--	--	--
MAY										
15...	1	10	2	1800	8	80	.2	1	20	0
JUL										
17...	--	--	--	--	--	--	--	--	--	--
SEP										
19...	--	--	--	--	--	--	--	--	--	--

06775900 DISMAL RIVER NEAR THEDFORD, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	PERTHANE TOTAL (UG/L) (39034)	PCB, TOTAL (UG/L) (39516)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG) (39519)	NAPHTHALENES, POLYCHLOR. TOTAL (UG/L) (39250)	ALDRIN, TOTAL (UG/L) (39330)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG) (39333)	CHLORDANE, TUTAL (UG/L) (39350)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG) (39351)
NOV										
29...	0930	.0	.00	.0	0	.00	.00	.0	.0	0

DATE	DDD, TOTAL (UG/L) (39360)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG) (39363)	DDE, TOTAL (UG/L) (39365)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG) (39368)	DDT, TOTAL (UG/L) (39370)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG) (39373)	DIAZINON, TOTAL (UG/L) (39570)	DIELDRIN TOTAL (UG/L) (39380)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG) (39383)	ENDOSULFAN, TOTAL (UG/L) (39388)
NOV										
29...	.00	.0	.00	.0	.00	.0	.00	.00	.0	.00

DATE	ENDRIN, TOTAL (UG/L) (39390)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG) (39393)	ETHION, TOTAL (UG/L) (39398)	HEPTACHLOR, TOTAL (UG/L) (39410)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG) (39413)	HEPTACHLOR EPOXIDE TOTAL (UG/L) (39420)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG) (39423)	LINDANE TOTAL (UG/L) (39340)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG) (39343)	MALATHION, TOTAL (UG/L) (39530)
NOV										
29...	.00	.0	.00	.00	.0	.00	.0	.00	.0	.00

DATE	METHYL PARATHION, TOTAL (UG/L) (39600)	METHYL TRITHION, TOTAL (UG/L) (39790)	PARATHION, TOTAL (UG/L) (39540)	TOXAPHENE, TOTAL (UG/L) (39400)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG) (39403)	TOTAL TRITHION (UG/L) (39786)	2,4-D, TOTAL (UG/L) (39730)	2,4,5-T TOTAL (UG/L) (39740)	MIREX, TOTAL (UG/L) (39755)	SILVEX, TOTAL (UG/L) (39760)
NOV										
29...	.00	.00	.00	0	0	.00	.00	.00	.00	.00

06776500 DISMAL RIVER AT DUNNING, NE

LOCATION.--Lat 41°49'23", long 100°06'05", in sec.4, T.21 N., R.24 W., Blaine County, Hydrologic Unit 10210002, on right bank 100 ft (30 m) downstream from bridge on State Highway 2 at southeast corner of Dunning and 1 mi (2 km) upstream from mouth.

DRAINAGE AREA.--2,040 mi² (5,280 km²), approximately, of which about 45 mi² (120 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--March to June 1932, September 1945 to current year.

REVISED RECORDS.--WSP 2118: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,606.3 ft (794.40 m) National Geodetic Vertical Datum of 1929. Mar. 1 to June 30, 1932, nonrecording gage at site 0.2 mi (0.3 km) upstream at datum 0.5 ft (0.15 m) lower. Sept. 13, 1945 to Apr. 19, 1956, nonrecording gage on bridge 100 ft (30 m) upstream at present datum.

REMARKS.--Records good except those for winter periods, which are poor.

AVERAGE DISCHARGE.--34 years (1945-79), 322 ft³/s (9.119 m³/s), 233,300 acre-ft/yr (0.288 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,170 ft³/s (33.1 m³/s) Aug. 25, 1977, gage height, 2.06 ft (0.628 m); maximum gage height observed, 5.21 ft (1.588 m) Jan. 19, 1947, backwater from ice; minimum daily discharge, 100 ft³/s (2.83 m³/s) Jan. 25, 1950, Jan. 9, 1962.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 571 ft³/s (16.2 m³/s) June 27, gage height, 1.42 ft (0.433 m); maximum gage height, 3.32 ft (1.012 m) Dec. 24, backwater from ice; minimum daily discharge, 210 ft³/s (5.95 m³/s) Dec. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	325	315	300	220	300	350	355	338	360	346	327	320
2	325	330	270	230	290	351	358	317	350	331	365	310
3	320	345	260	240	290	308	375	313	350	320	325	310
4	315	345	280	260	300	300	351	327	340	340	313	310
5	310	320	260	270	320	323	346	337	330	370	320	305
6	305	305	250	290	310	377	355	363	307	359	317	310
7	325	295	240	320	320	393	370	354	374	326	310	305
8	330	310	230	340	300	390	389	367	341	320	330	375
9	325	305	210	330	310	374	357	360	347	325	315	325
10	330	295	290	310	330	336	363	316	331	322	305	315
11	335	252	350	320	320	345	419	319	321	320	305	414
12	330	266	370	310	330	392	408	342	316	320	305	386
13	310	280	320	300	340	370	345	346	316	322	300	365
14	310	266	340	280	360	318	373	355	311	314	295	340
15	315	275	350	270	340	350	383	356	310	317	305	325
16	315	295	330	290	320	347	406	354	312	345	300	324
17	325	310	340	310	330	364	405	359	356	345	320	325
18	325	295	350	320	360	374	406	364	331	353	330	324
19	320	280	340	320	400	352	395	347	337	333	355	326
20	325	275	320	330	440	349	363	354	304	331	355	319
21	330	270	330	350	420	422	364	340	301	328	355	318
22	335	280	330	350	430	423	357	330	307	320	330	327
23	300	290	310	330	400	355	357	330	305	324	315	327
24	310	295	320	350	420	343	362	320	313	343	315	334
25	315	300	320	340	450	357	343	320	375	341	330	317
26	295	340	300	330	500	350	332	330	336	334	370	321
27	295	320	290	330	418	361	316	330	446	354	330	320
28	300	320	280	320	371	381	310	330	409	398	310	327
29	315	310	270	340	---	410	311	360	335	431	315	320
30	315	310	250	330	---	379	319	450	324	361	310	313
31	315	---	230	310	---	353	---	380	---	322	315	---
TOTAL	9845	8994	9230	9540	10019	11197	10889	10708	10095	10515	9992	9857
MEAN	318	300	298	308	358	361	363	345	337	339	322	329
MAX	335	345	370	350	500	423	419	450	446	431	370	414
MIN	295	252	210	220	290	300	310	313	301	314	295	305
AC-FT	19530	17840	18310	18920	19870	22210	21600	21240	20020	20860	19820	19550

CAL YR 1978 TOTAL 114969 MEAN 315 MAX 453 MIN 210 AC-FT 228000
WTR YR 1979 TOTAL 120881 MEAN 331 MAX 500 MIN 210 AC-FT 239800

06777000 MIDDLE LOUP RIVER NEAR MILBURN, NE

LOCATION.--Lat 41°49'02", long 99°58'15", in NE1/4SW1/4 sec.3, T.21 N., R.23 W., Blaine County, Hydrologic Unit 10210003, at Laughran bridge 9 miles upstream from Rifle Creek and 15 miles northwest of Milburn.

DRAINAGE AREA.--3,690 sq mi, approximately, of which 135 sq mi contributes directly to surface runoff.

PERIOD OF RECORD.--Water year 1970 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (JTU) (00070)	OXYGEN, DIS-SOLVED (MG/L) (00300)
OCT							
17...	1250	715	170	7.2	10.0	15	11.5
NOV							
07...	1455	702	167	7.3	10.5	15	11.3
DEC							
18...	1455	822	163	7.3	.5	15	13.5
JAN							
08...	1715	756	174	7.2	.5	10	10.5
FEB							
21...	1100	831	155	7.2	.5	20	11.2
MAR							
15...	1340	925	200	7.5	8.0	95	10.6
APR							
04...	1355	602	181	7.4	10.0	30	11.0
MAY							
14...	1510	815	177	7.7	18.5	25	8.9
JUN							
05...	0930	747	173	7.4	20.0	20	8.9
JUL							
17...	1157	816	162	7.1	21.5	25	9.0
AUG							
29...	1140	739	174	7.2	21.0	15	8.2
SEP							
19...	1350	791	172	7.1	19.0	15	8.4

DATE	TIME	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)
FEB										
21...	1100	65	0	21	3.1	6.8	.4	4.6	68	10
JUL										
17...	1157	62	0	20	3.0	6.2	.3	5.1	72	10

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P) (00666)	BORON, DIS-SOLVED (UG/L AS B) (01020)
FEB										
21...	1.0	.2	52	134	143	.18	301	.73	.16	30
JUL										
17...	.9	.3	56	148	147	.20	326	.49	.08	40

06778500 MIDDLE LOUP RIVER NEAR COMSTOCK, NE

LOCATION.--Lat 41°28'49", long 99°12'43", in NE1/4NE1/4NE1/4 sec.1, T.17 N., R.17 W., Custer County, Hydrologic Unit 10210003, at bridge on Custer-Valley County line 0.3 miles downstream from diversions for canals 3 and 4, 1.3 miles, south of Burlington Northern Inc. crossing, and 5.5 miles southeast of Comstock.

DRAINAGE AREA.--4,650 sq mi, approximately, of which 430 sq mi contributes directly to surface runoff.

PERIOD OF RECORD.--Water year 1969 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (JTU) (00070)	OXYGEN, DIS-SOLVED (MG/L) (00300)
OCT							
19...	1335	903	184	7.3	11.5	20	11.8
NOV							
09...	1110	795	185	7.3	8.0	25	12.5
DEC							
21...	1105	935	184	7.7	.5	10	11.7
JAN							
12...	1135	709	194	7.1	.5	8	12.0
FEB							
14...	1220	834	181	7.1	.5	15	11.3
MAR							
27...	1140	965	210	7.6	4.0	45	13.2
APR							
18...	1640	526	213	7.9	19.5	25	9.1
MAY							
09...	1300	1210	185	7.6	8.5	20	11.0
JUN							
21...	1355	414	188	7.3	25.0	15	8.8
JUL							
03...	1145	367	197	7.2	28.0	25	8.4
AUG							
02...	1600	97	203	8.0	31.0	35	8.7
SEP							
10...	1145	167	201	7.3	24.0	15	8.0

DATE	TIME	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)
FEB										
14...	1220	71	0	23	3.4	6.9	.4	5.4	72	6.7
JUL										
03...	1145	75	0	24	3.6	7.0	.4	6.8	84	7.1

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P) (00666)	BORON, DIS-SOLVED (UG/L AS B) (01020)
FEB										
14...	1.8	.2	53	164	147	.22	369	.67	.16	40
JUL										
03...	1.2	.3	58	164	159	.22	163	.20	.12	30

06779000 MIDDLE LOUP RIVER AT ARCADIA, NE

LOCATION.--Lat 41°25'20", long 99°08'10", in sec.26, T.17 N., R.16 W., Valley County, Hydrologic Unit 10210003, on left bank 80 ft (24 m) downstream from bridge on State Highway 70 at southwest edge of Arcadia.

DRAINAGE AREA.--5,040 mi² (13,100 km²), approximately, of which about 820 mi² (2,120 km²) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1937 to current year.

REVISED RECORDS.--WDR NE-72: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,146.30 ft (654.192 m) National Geodetic Vertical Datum of 1929 (levels by Water and Power Resources Service, formerly Bureau of Reclamation). Prior to Apr. 23, 1938, nonrecording gage at bridge just upstream at datum 1.23 ft (0.375 m) lower.

REMARKS.--Records fair except those for winter period, which are poor. Middle Loup Public Power and Irrigation District began diversion above station Mar. 30, 1938. Farwell Irrigation District canal began diversion from river in November 1962 at point 8 mi (13 km) above station.

AVERAGE DISCHARGE.--17 years (1962-79), 648 ft³/s (18.35 m³/s), 469,500 acre-ft/yr (0.579 km³/yr) since diversion to Farwell Irrigation District canal.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge estimated, about 18,500 ft³/s (524 m³/s) June 22, 1947, gage height, 6.24 ft (1.902 m); maximum discharge computed, 9,700 ft³/s (275 m³/s) May 27, 1945, gage height, 5.12 ft (1.561 m); maximum gage height, 6.41 ft (1.954 m) Mar. 27, 1960, backwater from ice; minimum daily discharge, 6.0 ft³/s (0.17 m³/s) July 23, 1974.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, about 4,500 ft³/s (127 m³/s) Mar. 18, backwater from ice; maximum gage height, 5.97 ft (1.820 m) Nov. 28, ice jam; minimum daily discharge, 71 ft³/s (2.01 m³/s) Sept. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	375	901	1300	540	640	980	992	600	838	405	134	85
2	360	863	900	600	660	1040	992	880	728	354	95	99
3	375	878	450	640	680	1000	753	656	716	368	89	95
4	358	883	350	620	700	1060	644	600	668	340	93	87
5	405	825	250	580	740	1140	610	590	560	390	101	75
6	382	896	230	620	760	1200	620	716	512	610	97	73
7	368	842	210	540	740	1140	590	768	570	610	95	71
8	334	803	230	560	720	1040	550	1080	680	486	93	103
9	354	824	350	580	700	1250	520	1310	704	428	97	195
10	375	964	600	620	740	1200	520	1210	740	412	118	158
11	392	894	900	660	700	1400	936	692	550	195	108	152
12	449	852	1000	720	660	1450	1020	570	494	103	116	308
13	614	880	840	660	700	1700	754	620	460	91	106	580
14	670	852	860	580	840	2000	478	692	398	87	108	680
15	702	824	880	600	740	2500	494	680	347	106	93	656
16	716	810	860	640	680	3100	520	680	334	93	143	600
17	751	838	960	700	660	3600	560	754	405	188	162	570
18	790	880	940	780	760	4200	600	922	600	126	152	570
19	878	852	880	820	880	2500	610	852	580	131	262	610
20	884	800	820	760	720	1600	740	782	420	140	284	632
21	818	660	940	820	660	1460	632	894	390	95	204	644
22	879	620	900	940	800	1840	590	922	302	85	180	796
23	798	640	880	920	740	1370	580	852	273	89	176	668
24	853	940	760	800	700	1050	600	824	284	110	152	656
25	845	1220	860	820	820	1030	796	810	375	106	152	656
26	896	1280	800	760	880	955	668	824	428	106	173	680
27	770	1200	940	740	840	942	550	852	704	103	262	656
28	751	960	900	700	900	908	530	824	866	99	236	656
29	823	1160	800	680	---	838	570	824	728	165	236	716
30	808	1200	620	660	---	964	540	1210	469	162	158	728
31	798	---	480	640	---	852	---	1080	---	158	137	---
TOTAL	19571	27041	22690	21300	20760	47309	19559	25570	16123	6941	4612	13255
MEAN	631	901	732	687	741	1526	652	825	537	224	149	442
MAX	896	1280	1300	940	900	4200	1020	1310	866	610	284	796
MIN	334	620	210	540	640	838	478	570	273	85	89	71
AC-FT	38820	53640	45010	42250	41180	93840	38800	50720	31980	13770	9150	26290

CAL YR 1978 TOTAL 249326 MEAN 683 MAX 4800 MIN 36 AC-FT 494500
WTR YR 1979 TOTAL 244731 MEAN 670 MAX 4200 MIN 71 AC-FT 485400

06779000 MIDDLE LOUP RIVER AT ARCADIA, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1977-1979.

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)
OCT									
04...	1245	354	208	7.4	13.5	78	0	25	3.7
MAY									
29...	1350	644	202	8.1	26.0	--	--	--	4.0
JUL									
30...	1330	158	214	8.3	27.5	97	0	30	5.4

DATE	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE (MG/L AS HCO3) (00440)	CAR-BONATE (MG/L AS CO3) (00445)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)
OCT									
04...	7.6	.4	5.7	112	0	92	9.4	1.3	.49
MAY									
29...	8.0	--	7.1	110	0	90	9.8	1.4	.06
JUL									
30...	7.8	.3	6.9	130	0	107	12	2.1	.11

06783500 MUD CREEK NEAR SWEETWATER, NE

LOCATION.--Lat 41°02'15", long 98°59'35", in NE1/4SE1/4 sec.3, T.12 N., R.15 W., Buffalo County, Hydrologic Unit 10210005, on right bank 12 ft (4 m) downstream from bridge on State Highway 2, 0.9 mi (1.4 km) southeast of Sweetwater, and 11.6 mi (18.7 km) upstream from mouth.

DRAINAGE AREA.--707 mi^2 (1,831 km^2), of which 655 mi^2 (1,696 km^2) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1946 to current year.

REVISED RECORDS.--WDR NE-72: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,013.69 ft (613.773 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for winter period, which are poor. Minor irrigation developments above station.

AVERAGE DISCHARGE.--33 years, 40.5 ft^3/s (1.147 m^3/s), 29,340 acre-ft/yr (36.2 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge estimated, about 27,000 ft^3/s (765 m^3/s) June 22, 1947, gage height, 23.20 ft (7.071 m); maximum discharge computed, 5,600 ft^3/s (159 m^3/s) June 24, 1968, gage height, 20.07 ft (6.117 m); no flow at times in 1955-56.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known since at least 1929, that of June 22, 1947, from information by local resident.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 339 ft^3/s (9.60 m^3/s) Apr. 19, gage height, 10.17 ft (3.100 m), no peak above base of 550 ft^3/s (15.6 m^3/s); maximum gage height, 12.65 ft (3.856 m) Mar. 3, backwater from ice; minimum daily discharge, 5.0 ft^3/s (0.14 m^3/s) Aug. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	19	21	16	16	27	35	31	32	54	27	15
2	13	19	17	16	17	35	36	31	30	47	19	14
3	13	19	15	17	17	50	36	31	28	40	16	13
4	12	19	17	17	18	45	35	30	26	42	11	14
5	12	19	17	16	19	43	34	30	25	65	11	14
6	12	19	16	16	19	45	33	30	24	49	10	13
7	13	19	14	17	18	80	32	29	24	38	10	13
8	14	18	15	17	19	120	32	29	23	32	8.8	15
9	14	18	17	16	19	116	31	32	26	32	5.0	17
10	13	18	20	16	18	112	31	40	28	30	5.6	17
11	13	18	21	15	18	110	34	51	28	36	7.0	18
12	14	18	22	15	19	118	38	47	27	28	8.3	19
13	13	19	20	16	20	140	39	40	28	25	6.6	17
14	13	19	21	17	21	120	43	35	24	24	5.1	17
15	13	19	22	17	20	100	38	31	23	25	6.8	15
16	14	19	22	18	19	80	34	30	22	29	8.7	17
17	15	19	23	18	17	71	32	30	22	31	11	16
18	15	19	22	19	19	56	32	33	22	28	11	14
19	15	18	21	20	21	55	65	34	22	27	27	14
20	15	16	21	20	21	52	85	43	24	32	28	14
21	15	18	22	21	20	51	38	42	27	26	17	13
22	16	20	22	21	21	81	35	33	25	23	18	14
23	17	20	21	20	20	75	34	30	35	22	12	13
24	18	20	20	20	19	66	32	30	37	22	9.6	13
25	19	20	20	19	19	54	31	28	33	21	17	13
26	21	20	20	19	21	48	31	27	26	21	55	13
27	20	22	19	18	21	43	31	27	26	22	27	13
28	18	20	18	18	25	41	33	27	90	25	20	12
29	19	22	18	17	---	39	34	27	122	59	21	12
30	20	21	17	17	---	37	32	33	76	46	17	12
31	19	---	17	16	---	37	---	31	---	43	16	---
TOTAL	471	574	598	545	541	2147	1106	1022	1005	1044	472.5	434
MEAN	15.2	19.1	19.3	17.6	19.3	69.3	36.9	33.0	33.5	33.7	15.2	14.5
MAX	21	22	23	21	25	140	85	51	122	65	55	19
MIN	12	16	14	15	16	27	31	27	22	21	5.0	12
AC-FT	934	1140	1190	1080	1070	4260	2190	2030	1990	2070	937	861

CAL YR 1978 TOTAL 23319.2 MEAN 63.9 MAX 2140 MIN .57 AC-FT 46250
WTR YR 1979 TOTAL 9959.50 MEAN 27.3 MAX 140 MIN 5.0 AC-FT 19750

06783500 MUD CREEK NEAR SWEETWATER, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--October 1978 to September 1979.

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	TURBIDITY (JTU) (00070)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L) (00310)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT										
19...	1335	15	587	7.6	9.5	15	10.5	17	K190	450
NOV										
09...	1030	18	577	8.0	7.0	8	11.2	14	K53	K88
DEC										
20...	1155	21	617	7.5	.5	7	9.0	1.6	130	K520
JAN										
10...	1135	16	669	7.1	.5	10	4.2	6.2	100	110
FEB										
22...	1310	22	596	7.1	1.0	10	5.2	1.6	870	3700
MAR										
22...	1245	96	480	7.7	4.5	180	10.0	11	5000	K18000
APR										
04...	1420	35	600	7.9	8.0	20	11.1	2.5	K12	K14000
MAY										
17...	1420	30	603	7.7	20.0	25	9.1	7.6	450	2100
JUN										
07...	1200	24	586	8.0	21.0	70	6.8	11	1000	1700
JUL										
19...	1350	26	569	7.8	23.0	100	7.4	6.5	K4900	2600
AUG										
08...	1335	9.4	551	7.9	27.0	65	7.8	2.8	K2200	1700
SEP										
19...	1410	14	561	7.9	17.5	40	8.9	1.6	1400	1200

K Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, DISSOLVED (TONS PER AC-FT) (70303)	SOLIDS, DISSOLVED (TONS PER DAY) (70302)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)
OCT										
19...	14	403	.55	16.3	.01	.04	.68	.72	.73	.52
NOV										
09...	10	380	.52	18.5	.04	.05	.45	.50	.54	.45
DEC										
20...	16	415	.56	23.5	1.1	.16	.46	.62	1.7	.47
JAN										
10...	14	443	.60	19.1	1.2	.22	.49	.71	1.9	.50
FEB										
22...	15	--	.56	24.7	1.2	.94	.36	1.3	2.5	.60
MAR										
22...	14	315	.43	81.6	1.3	1.1	.90	2.0	3.3	1.7
APR										
04...	13	438	.60	41.4	1.1	1.1	.70	1.8	2.9	1.1
MAY										
17...	22	411	.56	33.3	1.2	.13	.97	1.1	2.3	1.1
JUN										
07...	9.5	392	.53	25.4	1.2	.12	2.0	2.1	3.3	.94
JUL										
19...	11	379	.52	26.6	1.5	.05	1.6	1.6	3.1	2.1
AUG										
08...	9.4	--	.53	9.92	1.2	.01	1.5	1.5	2.7	1.1
SEP										
19...	9.1	393	.53	14.9	.93	.06	.22	.28	1.2	.80

06783500 MUD CREEK NEAR SWEETWATER, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L CACO3) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LINITY (MG/L AS CACO3) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)
NOV 09...	1030	300	2	96	15	17	.4	12	300	20
FEB 22...	1310	300	4	97	15	21	.5	11	300	26
MAY 17...	1420	310	0	97	17	19	.5	15	310	26
AUG 08...	1335	270	0	86	14	16	.4	15	280	27

DATE	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00666)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)
NOV 09...	.2	33	386	.00	.40	6	0	1800	2	0
FEB 22...	.2	49	415	--	.55	--	--	70	--	--
MAY 17...	.3	42	401	1.1	.87	8	200	170	1	0
AUG 08...	.3	55	391	--	.83	--	--	130	--	--

DATE	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MERCURY SUS- PENDED RECOV- ERABLE (UG/L AS HG) (71895)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)
NOV 09...	2	50	--	50	.2	--	.0	2	0	10
FEB 22...	--	40	--	240	--	--	--	--	--	--
MAY 17...	0	10	2	80	.0	.0	.0	2	0	20
AUG 08...	--	<10	--	5	--	--	--	--	--	--

06784000 SOUTH LOUP RIVER AT ST. MICHAEL, NE

LOCATION.--Lat 41°01'53", long 98°44'25", in NE1/4NE1/4 sec.11, T.12 N., R.13 W., Buffalo County, Hydrologic Unit 10210004, 15 ft (5 m) upstream and 65 ft (20 m) right from right upstream corner of county highway bridge, 0.6 mi (1.0 km) northeast of St. Michael, and 3.4 mi (5.5 km) upstream from Sweet Creek.

DRAINAGE AREA.--2,350 mi² (6,090 km²), approximately, of which about 1,610 mi² (4,170 km²) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1943 to current year.

REVISED RECORDS.--WDR NE-74: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,921.26 ft (585.600 m) National Geodetic Vertical Datum of 1929. Prior to June 22, 1947, water-stage recorder, and June 25 to Sept. 30, 1947, nonrecording gage, at site 40 ft (12 m) downstream at datum 2.00 ft (0.610 m) higher. Oct. 1, 1947, to July 3, 1958, nonrecording gage at site 40 ft (12 m) downstream at present datum. July 4, 1958, to Sept. 7, 1960, water-stage recorder at site 560 ft (171 m) upstream at present datum. Sept. 8, 1960, to June 24, 1968, water-stage recorder at site 60 ft (18 m) upstream at present datum. June 25 to Nov. 21, 1968, nonrecording gage at site 40 ft (12 m) downstream at present datum.

REMARKS.--Records good except those for winter period, which are poor. Minor irrigation developments above station.

AVERAGE DISCHARGE.--36 years, 242 ft³/s (6.853 m³/s), 175,300 acre-ft/yr (0.216 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge estimated, about 50,000 ft³/s (1,420 m³/s) June 22, 1947, gage height, 12.0 ft (3.66 m), present datum, from graph based on gage readings; maximum discharge computed, 27,500 ft³/s (779 m³/s) June 24, 1966, gage height, 11.00 ft (3.353 m); minimum daily, 6.6 ft³/s (0.19 m³/s) Aug. 30, 1955.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,570 ft³/s (44.5 m³/s) Apr. 20, gage height, 5.73 ft (1.747 m), from floodmark; maximum gage height, 9.07 ft (2.765 m) Mar. 9, backwater from ice; minimum daily discharge, 54 ft³/s (1.53 m³/s) Aug. 11, 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	54	149	160	130	120	170	350	245	185	550	195	85
2	96	155	120	135	125	185	340	242	185	468	175	77
3	96	158	100	145	135	280	320	235	192	291	143	78
4	98	155	120	135	130	250	301	230	184	240	120	73
5	102	158	114	125	145	230	296	230	189	772	104	69
6	103	161	105	130	150	230	286	225	176	468	100	67
7	104	164	96	135	145	250	281	225	181	322	92	62
8	106	165	90	145	140	300	281	226	182	266	79	75
9	109	166	120	140	145	350	271	236	234	245	69	80
10	110	166	150	135	150	330	276	325	258	240	60	84
11	110	167	155	140	145	320	344	376	246	235	54	85
12	112	170	165	140	145	330	462	343	221	226	62	104
13	113	174	150	130	155	350	442	298	203	203	56	118
14	114	174	160	120	170	420	416	287	184	185	54	112
15	121	178	165	130	165	520	355	260	160	177	71	113
16	123	185	160	135	140	480	312	240	149	169	80	109
17	121	191	155	150	150	421	312	230	151	185	83	106
18	127	194	160	155	160	424	322	442	135	192	86	103
19	137	180	150	160	170	441	340	381	146	191	131	100
20	140	170	155	155	165	419	771	284	152	183	163	99
21	142	170	160	160	175	442	384	246	146	175	122	97
22	152	180	155	160	170	877	349	209	166	148	110	98
23	164	195	150	140	160	752	301	185	310	134	97	96
24	163	210	140	145	150	632	275	174	545	132	87	98
25	160	205	145	150	165	655	285	165	270	132	196	97
26	158	200	140	145	175	573	277	154	245	129	383	96
27	158	185	145	140	170	507	283	149	213	163	177	96
28	154	175	150	135	165	460	266	142	608	246	132	97
29	149	190	155	130	---	400	258	138	632	254	125	99
30	141	185	160	125	---	370	247	153	410	280	113	100
31	142	---	145	120	---	370	---	179	---	208	102	---
TOTAL	3919	5275	4395	4320	4280	12738	10003	7454	7254	7809	3621	2773
MEAN	126	176	142	139	153	411	333	240	242	252	117	92.4
MAX	164	210	165	160	175	877	771	442	632	772	383	118
MIN	54	149	90	120	120	170	247	138	135	129	54	62
AC-FT	7770	10460	8720	8570	8490	25270	19840	14790	14390	15490	7180	5500

CAL YR 1978 TOTAL 115630 MEAN 317 MAX 10600 MIN 58 AC-FT 229400
WTR YR 1979 TOTAL 73841 MEAN 202 MAX 877 MIN 54 AC-FT 146500

06784000 SOUTH LOUP RIVER AT ST. MICHAEL, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1946-53, 1974 to current year.

PERIOD OF DAILY RECORD.--
SUSPENDED SEDIMENT DISCHARGE: June 1946 to June 1953.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SEDIMENT CONCENTRATIONS: Maximum daily, 19,300 mg/L June 19, 1946; minimum daily, 13 mg/L Dec. 30, 31, 1951.
SEDIMENT LOADS: Maximum daily, 672,000 tons (612,000 tonnes) June 22, 1947; minimum daily, 6.1 tons (5.5 tonnes) Dec. 30, 31, 1951.

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (JTU) (00070)	OXYGEN, DIS-SOLVED (MG/L) (00300)
OCT							
19...	1030	137	404	8.2	8.5	40	12.2
NOV							
09...	1310	168	410	8.1	12.0	40	11.5
DEC							
20...	1020	152	437	7.3	.5	15	9.3
JAN							
10...	1005	137	449	7.1	.5	15	6.3
FEB							
22...	1040	165	414	7.1	.5	15	5.8
MAR							
15...	1020	432	341	7.6	.5	90	12.9
APR							
04...	1050	291	423	8.1	7.0	55	11.8
MAY							
17...	1045	227	405	8.3	19.5	35	9.9
JUN							
07...	1010	185	391	8.4	22.0	50	8.9
JUL							
19...	1105	188	405	8.4	24.5	70	9.4
AUG							
08...	1050	86	397	8.3	26.5	40	8.5
SEP							
19...	1120	103	404	8.3	18.0	35	10.8

DATE	TIME	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)
FEB										
22...	1040	200	0	69	9.2	16	.5	8.4	200	20
JUL										
19...	1105	180	0	58	9.3	12	.4	10	190	19

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P) (00666)	BORON, DIS-SOLVED (UG/L AS B) (01020)
FEB										
22...	5.8	.2	51	292	300	.40	130	1.2	.27	50
JUL										
19...	5.2	.3	51	278	279	.38	141	.01	.32	70

06784200 SHERMAN RESERVOIR NEAR LOUP CITY, NE

LOCATION.--Lat 41°18'10", long 98°52'45", in SW1/4NW1/4 sec.1, T.15 N., R.14 W., Sherman County, Hydrologic Unit 10210003, in control house of outlet works of Sherman Dam, 5 mi (8 km) northeast of Loup City.

ELEVATION AND CONTENTS RECORDS

PERIOD OF RECORD.--October 1962 to current year.

GAGE.--Mercury-column pressure gage read once daily. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.-- Reservoir is formed by earthfill dam; closure date of dam, August 1960. First diversions from Middle Loup River, Nov. 8, 1962. Usable capacity, 65,237 acre-ft (80.4 hm^3) between elevations 2,118.5 ft (645.72 m), sill of canal outlet works, and 2,162.3 ft (659.07 m), crest of spillway. Dead and inactive storage, 3,839 acre-ft (4.73 hm^3) below elevation 2,118.5 ft (645.72 m). Figures given herein represent total contents. Water used for irrigation of Farwell Unit of Water and Power Resources Service (formerly Bureau of Reclamation).

COOPERATION.--Records of elevations and capacity table furnished by Water and Power Resources Service (formerly Bureau of Reclamation).

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 70,230 acre-ft (86.6 hm^3) June 22, 1975, elevation, 2,162.7 ft (659.19 m); minimum observed since appreciable storage was attained, 10,010 acre-ft (12.3 hm^3) Sept. 1, 1971, elevation, 2,128.4 ft (648.74 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 69,650 acre-ft (85.9 hm^3) July 4-11, elevation, 2,162.5 ft (659.13 m); minimum observed, 20,200 acre-ft (24.9 hm^3) Sept. 11-13, elevation, 2,138.2 ft (651.72 m).

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	2,153.6	46,920	-
Oct. 31	2,156.8	54,430	+7,510
Nov. 30	2,156.1	52,720	-1,710
Dec. 31	2,155.5	51,290	-1,430
CAL YR 1978	-	-	+1,640
Jan. 31	2,155.0	50,110	-1,180
Feb. 28	2,154.5	48,960	-1,150
Mar. 31	2,154.4	48,730	-230
Apr. 30	2,159.8	62,140	+13,410
May 31	2,162.4	69,360	+7,220
June 30	2,162.4	69,360	0
July 31	2,156.9	54,670	-14,690
Aug. 31	2,142.3	25,910	-28,760
Sept. 30	2,140.4	23,150	-2,760
WTR YR 1979	-	-	-23,770

06784200 SHERMAN RESERVOIR NEAR LOUP CITY, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1977-1979.

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L CACO3) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)
OCT 04...	1420	207	7.7	14.5	81	0	26	4.0	7.9
MAY 29...	1545	210	8.1	20.0	88	0	28	4.5	8.2
JUL 30...	1420	210	7.4	25.0	96	6	30	5.1	8.2

DATE	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)	ALKA- LINITY (MG/L AS CACO3) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)
OCT 04...	.4	6.6	116	0	95	10	1.4	.23
MAY 29...	.4	6.9	118	0	97	8.7	1.6	.37
JUL 30...	.4	6.9	110	0	90	11	1.2	.09

06784800 TURKEY CREEK NEAR DANNEBROG, NE

LOCATION.--Lat 41°09'24", long 98°33'22", in SW1/4NW1/4 sec.28, T.14 N., R.11 W., Howard County, Hydrologic Unit 10210003, on left bank 25 ft (8 m) downstream from bridge on State Highway 11, 2.8 mi (4.5 km) north of Dannebrog, and 10 mi (16 km) upstream from mouth.

DRAINAGE AREA.--66.2 mi² (171.5 km²).

PERIOD OF RECORD.--May 1966 to September 1970, October 1978 to September 1979.

GAGE.--Water-stage recorder. Datum of gage is 1,870.35 ft (570.083 m) National Geodetic Vertical Datum of 1929 (Water and Power Resources Service, formerly Bureau of Reclamation).

REMARKS.--Records good except those for winter period, which are poor. Low flow includes return water from Farwell Irrigation District.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,680 ft³/s (75.9 m³/s) June 14, 1967, gage height, 19.21 ft (5.855 m); no flow May 17-20, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 417 ft³/s (11.8 m³/s) Mar. 22, gage height, 10.63 ft (3.240 m); minimum daily, 4.1 ft³/s (0.12 m³/s) Oct. 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.7	4.7	6.7	5.2	4.8	14	15	13	8.7	11	33	22
2	4.7	5.0	6.4	5.4	4.8	54	16	11	7.8	11	38	20
3	4.7	5.3	6.0	5.6	4.8	130	15	11	7.4	11	43	20
4	4.3	5.3	6.6	5.6	4.6	66	14	10	7.4	14	36	20
5	4.3	5.4	8.0	5.4	5.0	42	14	10	7.1	113	33	18
6	4.3	5.3	6.8	5.6	5.2	32	11	10	7.0	28	33	28
7	4.7	4.9	7.0	5.6	5.0	87	11	10	7.0	19	34	32
8	5.0	5.2	6.6	5.6	4.8	156	11	9.6	6.8	18	34	43
9	5.0	5.7	6.0	5.6	5.0	202	10	11	8.0	16	40	42
10	4.7	5.4	6.4	5.8	5.0	221	12	24	8.9	15	46	38
11	5.0	5.1	6.6	5.8	4.8	148	22	15	7.6	15	44	28
12	5.5	5.2	6.7	5.8	4.8	188	23	11	7.1	15	44	23
13	4.6	6.4	6.5	5.8	5.0	266	17	11	6.8	15	44	32
14	4.3	7.8	6.5	5.6	5.4	81	15	10	6.6	14	44	23
15	4.2	5.6	6.7	6.0	5.4	31	15	9.8	6.2	38	45	15
16	4.1	5.7	6.3	6.6	5.0	22	14	9.5	6.1	34	50	11
17	4.5	6.1	6.2	6.6	5.0	24	14	11	6.5	25	44	11
18	4.7	5.8	6.6	6.6	5.4	37	13	14	6.8	22	42	8.9
19	4.9	5.6	6.7	6.4	5.8	44	13	12	6.8	19	42	8.0
20	4.6	5.0	6.5	6.2	6.0	19	20	9.7	5.9	17	42	7.1
21	4.7	5.2	6.5	6.4	6.0	25	16	9.3	5.8	13	59	7.1
22	5.2	5.8	6.3	6.2	6.4	315	13	9.1	5.6	16	53	6.5
23	7.1	6.5	6.0	6.0	6.4	108	13	8.6	11	17	41	6.6
24	4.9	6.1	5.4	5.8	6.2	32	12	8.4	39	22	36	6.3
25	5.3	6.2	6.2	5.8	6.8	24	12	8.4	9.5	42	40	5.9
26	5.3	7.1	5.6	5.6	8.2	21	12	8.4	19	29	53	5.8
27	6.5	6.4	5.6	5.6	11	19	11	8.4	8.4	30	44	5.8
28	4.6	6.0	6.2	5.4	13	19	11	8.2	54	29	32	5.7
29	4.9	6.8	6.0	5.2	---	18	13	8.0	80	32	26	5.7
30	5.1	6.8	5.6	5.2	---	17	11	8.1	12	31	22	5.3
31	4.9	---	5.4	5.0	---	15	---	13	---	31	21	---
TOTAL	151.3	173.4	196.6	179.0	165.6	2477	419	330.5	386.8	762	1238	510.7
MEAN	4.88	5.78	6.34	5.77	5.91	79.9	14.0	10.7	12.9	24.6	39.9	17.0
MAX	7.1	7.8	8.0	6.6	13	315	23	24	80	113	59	43
MIN	4.1	4.7	5.4	5.0	4.6	14	10	8.0	5.6	11	21	5.3
AC-FT	300	344	390	355	328	4910	831	656	767	1510	2460	1010

WTR YR 1979 TOTAL 6989.9 MEAN 19.2 MAX 315 MIN 4.1 AC-FT 13860

06785000 MIDDLE LOUP RIVER AT ST. PAUL, NE

LOCATION (REVISED).--Lat 41°12'13", long 98°26'46", in SE1/4NW1/4NE1/4 sec.10, T.14 N., R.10 W., Howard County, Hydrologic Unit 10210003, on left bank at St. Paul, 20 ft (6 m) upstream from bridge on U.S. Highway 281 and 6 mi (10 km) upstream from confluence with North Loup River.

DRAINAGE AREA.--8,090 mi² (21,000 km²), approximately, of which about 3,130 mi² (8,110 km²) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1894 to September 1915, August 1928 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1036: 1943. WSP 1390: 1896, 1903, 1928(M), 1944. WDR NE-72: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,776.61 ft (541.511 m) National Geodetic Vertical Datum of 1929. See WSP 1918 for history of changes prior to June 5, 1957. June 5, 1957 to Mar. 16, 1978, water-stage recorder on left bank 430 ft (131 m) upstream at same datum. Mar. 17 to May 31, 1978, nonrecording gage on railroad bridge 30 ft (9 m) upstream at same datum.

REMARKS.--Records good except those for winter period, which are fair. Diversions above station for irrigation.

AVERAGE DISCHARGE.--72 years, 1,193 ft³/s (33.79 m³/s), 864,300 acre-ft/yr (1.07 km³/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 72,000 ft³/s (2,040 m³/s) June 23, 1947, gage height, 12.69 ft (3.868 m), site then in use, present datum, from rating curve extended above 55,000 ft³/s (1,560 m³/s); minimum daily since 1929, 59 ft³/s (1.67 m³/s) July 10, 1970.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,180 ft³/s (175 m³/s) Mar. 18, gage height, 3.85 ft (1.173 m); maximum gage height, 7.23 ft (2.204 m) Mar. 10, from floodmark, backwater from ice; minimum daily discharge, 246 ft³/s (6.97 m³/s) Aug. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	496	1080	1750	720	840	1200	1830	909	1390	930	494	397
2	457	1140	1200	800	860	1300	1720	895	1150	1090	457	378
3	491	1140	700	900	880	1300	1520	1080	1060	793	445	342
4	496	1230	470	800	900	1400	1400	900	1030	748	385	354
5	542	1330	360	720	940	1500	1620	890	1030	1100	318	336
6	564	1200	320	760	960	1500	1620	931	952	1190	297	318
7	585	1220	300	680	960	1450	1430	1010	854	1090	276	312
8	584	1160	320	700	940	1500	1400	1040	939	995	252	372
9	553	1120	560	720	920	1700	1310	1310	1130	901	246	432
10	591	1180	900	760	940	1600	1200	1430	1150	826	266	476
11	603	1260	1000	900	920	1800	1400	1250	1040	741	277	558
12	576	1160	1200	1100	900	1850	1690	1130	955	742	292	549
13	554	1080	1060	900	940	2200	2040	1070	862	521	295	612
14	679	1110	1060	780	1040	2600	1970	1020	782	413	325	820
15	823	1160	1100	800	980	3200	1550	1160	710	463	340	975
16	882	1530	1080	820	900	3800	1310	1140	657	401	372	890
17	893	1660	1180	900	880	4500	1370	1170	663	589	348	800
18	1020	1320	1200	1000	1040	5620	1200	1420	661	577	372	770
19	1030	1220	1160	1060	1160	3470	1280	1350	719	614	439	790
20	1020	1270	1100	1040	940	2920	1900	1370	770	495	418	810
21	1060	880	1250	1060	880	2700	1400	1140	718	447	549	820
22	1050	640	1200	1200	1060	4860	1080	1120	681	418	508	840
23	1130	740	1200	1060	980	4400	958	1130	666	358	432	890
24	582	1140	1100	900	940	1940	968	1090	932	346	390	942
25	1040	2160	1160	940	1040	1940	1000	1080	771	370	432	860
26	566	2090	1060	920	1140	1860	1100	1080	680	387	630	860
27	1010	1480	1200	900	1100	1830	949	1070	726	425	639	852
28	1000	1240	1160	880	1140	1830	933	1050	907	533	516	851
29	926	1460	1000	860	---	1760	878	1040	1410	588	567	841
30	1020	1520	820	860	---	1720	830	1080	1200	554	516	855
31	1080	---	740	840	---	1830	---	1290	---	564	476	---
TOTAL	24783	37920	29930	27300	27120	73080	40856	34645	27195	20289	12569	19902
MEAN	799	1264	965	881	969	2357	1362	1118	907	654	405	663
MAX	1130	2160	1750	1200	1160	5620	2040	1430	1410	1190	639	975
MIN	491	640	300	680	840	1200	830	890	657	346	246	312
AC-FT	49160	75210	59370	54150	53790	145000	81040	68720	53940	40240	24930	39480

CAL YR 1978 TOTAL 421584 MEAN 1155 MAX 18000 MIN 180 AC-FT 836200
WTR YR 1979 TOTAL 375589 MEAN 1029 MAX 5620 MIN 246 AC-FT 745000

06785000 MIDDLE LOUP RIVER AT ST. PAUL, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water year 1969 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (JTU) (00070)	OXYGEN, DIS-SOLVED (MG/L) (00300)
OCT							
04...	1620	508	328	7.8	15.5	--	--
16...	1120	868	269	8.0	9.5	40	12.1
NOV							
07...	1050	1170	261	7.8	8.0	40	12.7
DEC							
18...	1100	1150	297	7.3	.5	15	13.2
JAN							
08...	1340	691	326	7.2	.5	10	10.2
FEB							
20...	1145	894	302	7.0	.5	15	9.0
MAR							
16...	1030	3880	235	7.4	2.0	75	12.9
APR							
02...	1535	1710	309	7.8	6.0	55	11.8
MAY							
14...	1630	1080	324	8.0	19.0	30	9.7
30...	1700	1100	458	7.6	15.5	--	--
JUN							
04...	1350	1010	288	8.2	27.0	30	9.0
JUL							
16...	1440	497	348	8.4	27.0	95	7.8
31...	0820	594	322	8.2	19.0	--	--
AUG							
06...	1410	297	366	8.2	31.5	50	7.9
SEP							
17...	1440	834	293	8.1	23.0	35	8.9

DATE	TIME	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE (MG/L AS HCO3) (00440)	CAR-BONATE (MG/L AS CO3) (00445)	ALKA-LINITY (MG/L AS CACO3) (00410)
OCT											
04...	1620	140	0	42	7.4	12	.4	8.0	184	0	151
FEB											
20...	1145	140	0	43	6.7	10	.4	7.2	--	--	140
MAY											
30...	1700	180	3	57	10	16	.5	9.8	220	0	180
JUL											
16...	1440	140	0	43	8.0	12	.4	11	--	--	160
31...	0820	140	0	44	7.6	11	.4	9.7	190	0	156

DATE	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P) (00666)	BORON, DIS-SOLVED (UG/L AS B) (01020)
OCT											
04...	18	3.3	--	--	--	--	--	--	.01	--	--
FEB											
20...	15	3.2	.3	54	225	227	.31	543	.82	.22	30
MAY											
30...	27	5.5	--	--	--	--	--	--	1.2	--	--
JUL											
16...	17	4.7	.3	48	256	242	.35	344	.42	.01	50
31...	18	4.0	--	--	--	--	--	--	.58	--	--

06786000 NORTH LOUP RIVER AT TAYLOR, NE

LOCATION.--Lat 41°46'37", long 99°22'45", in NE1/4SE1/4 sec.22, T.21 N., R.18 W., Loup County, Hydrologic Unit 10210006, on left bank 64 ft (20 m) downstream from bridge on U.S. Highway 183 and 0.4 mi (0.6 km) north of Taylor.

DRAINAGE AREA.--2,280 mi² (5,910 km²), approximately, of which about 180 mi² (470 km²) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1936 to current year.

REVISED RECORDS.--WSP 856: 1937. WSP 1310: 1939(M). WSP 1730: 1956-57(M). WSP 1918: 1952. WDR NE-72: Drainage area. WDR NE-75: 1974.

GAGE.--Water-stage recorder. Datum of gage is 2,248.21 ft (685.254 m) National Geodetic Vertical Datum of 1929. Prior to Sept. 28, 1938, nonrecording gage at same site and datum. Sept. 28, 1938, to July 16, 1958, water-stage recorder at site 450 ft (137 m) upstream at same datum.

REMARKS.--Records fair except those for winter period, which are poor. North Loup Public Power and Irrigation District canal began diversion from river in April 1939 at point 5 mi (8 km) above station. Several smaller diversions above station for irrigation.

AVERAGE DISCHARGE.--42 years (1937-79), 458 ft³/s (12.97 m³/s), 331,800 acre-ft/yr (0.409 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,870 ft³/s (81.3 m³/s) May 7, 1977, gage height, 5.98 ft (1.823 m), from floodmark, but may have been greater during ice breakup Mar. 10, 1955; maximum gage height, 9.5 ft (2.90 m) Feb. 25, 1957, ice jam, from floodmarks; minimum daily discharge, 45 ft³/s (1.27 m³/s) July 26, 1941.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, about 1,600 ft³/s (45.3 m³/s) Mar. 14, backwater from ice; maximum gage height recorded, 7.18 ft (2.188 m) Mar. 9, ice jam, but may have been exceeded during the period Mar. 10-13; minimum daily discharge, 119 ft³/s (3.37 m³/s) Aug. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	417	459	420	420	440	490	589	556	520	494	289	212
2	432	448	290	480	450	500	589	543	472	462	239	231
3	419	455	240	470	440	460	589	485	448	463	199	222
4	409	462	290	440	430	440	656	510	428	462	189	203
5	391	455	330	440	450	540	636	550	401	502	166	186
6	391	448	360	440	440	620	665	571	384	570	159	186
7	396	448	350	430	450	620	627	579	413	608	145	191
8	406	440	350	420	440	640	589	659	502	568	121	296
9	408	455	360	420	460	700	589	634	533	500	126	434
10	413	455	370	410	450	740	718	643	539	470	119	342
11	408	432	380	410	470	900	656	608	524	431	122	394
12	404	432	410	390	480	1100	656	617	484	391	120	502
13	402	440	410	380	480	1300	608	601	416	329	122	553
14	407	432	410	370	520	1400	608	602	373	260	137	510
15	413	455	410	390	450	646	627	602	345	281	175	462
16	410	440	390	420	460	608	656	550	338	335	189	410
17	407	485	380	420	470	627	636	524	466	435	191	362
18	408	494	370	420	480	676	633	540	485	422	267	336
19	407	455	360	420	490	598	631	617	476	348	432	342
20	408	410	350	420	490	502	606	612	462	292	363	342
21	413	395	360	420	520	589	584	553	462	236	403	356
22	434	400	360	430	500	793	517	497	462	194	473	349
23	448	410	340	440	480	738	510	460	470	189	380	342
24	447	430	300	460	450	580	520	449	510	291	328	342
25	454	430	380	440	470	544	551	458	636	259	330	362
26	449	440	400	430	480	562	531	486	593	319	390	342
27	447	430	410	430	500	494	487	463	646	395	396	342
28	451	430	410	420	490	519	495	445	972	368	304	349
29	456	420	390	420	---	510	503	440	862	378	269	362
30	452	420	350	410	---	536	517	586	646	374	242	376
31	455	---	380	430	---	570	---	624	---	321	218	---
TOTAL	13062	13205	11310	13140	13130	20542	17739	17024	15268	11945	7603	10238
MEAN	421	440	365	424	469	663	591	549	509	385	245	341
MAX	456	494	420	480	520	1400	718	659	972	608	473	553
MIN	391	395	240	370	430	440	487	440	338	189	119	186
AC-FT	25910	26190	22430	26060	26040	40750	35190	33770	30280	23690	15080	20310

CAL YR 1978 TOTAL 163122 MEAN 447 MAX 1500 MIN 131 AC-FT 323600
WTR YR 1979 TOTAL 164206 MEAN 450 MAX 1400 MIN 119 AC-FT 325700

06786000 NORTH LOUP RIVER AT TAYLOR, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water year 1974 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: July 1974 to current year.
WATER TEMPERATURES: July 1974 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 552 micromhos Mar. 2, 1977; minimum daily, 73 micromhos Nov. 16, 1978.
WATER TEMPERATURES: Maximum, 32.0°C July 3, 1979; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 538 micromhos Feb. 1; minimum daily, 129 micromhos Mar. 12, 13.
WATER TEMPERATURES: Maximum, 32.0°C July 3; minimum, 0.0°C on many days during winter period.

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	COLOR (PLAT-INUM-COBALT UNITS) (00080)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)
OCT 10...	1520	414	158	7.3	17.0	--	63	0	20
NOV 01...	1020	459	159	7.2	9.0	--	62	0	20
DEC 12...	1355	411	160	7.3	.5	--	66	0	21
JAN 24...	1130	461	157	7.4	.5	--	66	0	21
FEB 12...	1640	476	151	7.0	.5	--	65	0	21
MAR 30...	1400	552	185	7.4	8.0	--	70	0	22
APR 17...	1400	621	188	7.7	19.5	--	76	0	24
MAY 29...	1330	436	165	7.6	26.5	--	66	0	21
JUN 19...	1310	462	168	7.2	23.0	--	69	0	22
JUL 05...	1040	462	167	7.5	18.5	--	66	0	21
AUG 22...	1050	467	152	7.1	21.5	--	60	0	19
SEP 11...	1220	378	170	7.4	19.0	5	63	0	20

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)
OCT 10...	3.1	5.9	.3	5.7	74	6.6	1.0	.3	53
NOV 01...	3.0	7.2	.4	5.5	75	6.7	1.4	.3	58
DEC 12...	3.2	6.5	.4	6.1	71	4.6	1.3	.3	61
JAN 24...	3.2	6.2	.3	6.1	71	5.0	1.4	.3	59
FEB 12...	3.1	6.0	.3	5.0	70	4.7	1.1	.3	53
MAR 30...	3.7	8.6	.4	6.3	85	6.3	1.7	.5	51
APR 17...	3.8	8.7	.4	7.0	77	8.1	1.7	.5	49
MAY 29...	3.3	7.5	.4	6.6	73	7.4	1.1	.3	44
JUN 19...	3.4	6.3	.3	5.9	88	7.5	1.3	.4	52
JUL 05...	3.2	6.2	.3	5.8	74	5.5	1.1	.4	58
AUG 22...	3.0	5.8	.3	5.7	65	9.4	1.4	.3	56
SEP 11...	3.1	6.6	.4	5.3	71	8.2	.9	.4	57

06786000 NORTH LOUP RIVER AT TAYLOR, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P) (00666)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)
OCT									
10...	--	--	--	.55	--	.12	30	50	0
NOV									
01...	--	--	--	.77	--	.11	70	30	3
DEC									
12...	150	.20	166	.79	--	.17	30	40	4
JAN									
24...	148	.20	184	.77	--	.17	30	50	4
FEB									
12...	139	.19	179	.65	--	.16	20	60	0
MAR									
30...	154	.21	230	.58	--	.16	10	50	3
APR									
17...	151	.21	253	.33	--	.13	80	60	0
MAY									
29...	135	.18	159	.00	--	.04	10	30	0
JUN									
19...	153	.21	191	.18	--	.08	40	20	0
JUL									
05...	146	.20	182	.00	--	.07	30	40	3
AUG									
22...	141	.19	178	.33	--	.08	30	30	2
SEP									
11...	146	.20	149	.33	.14	.10	20	20	20

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	186	188	155	188	538	188	160	172	169	163	169	197
2	161	163	169	182	497	143	178	174	173	165	172	173
3	160	183	180	179	460	147	161	168	174	165	170	173
4	161	173	180	174	410	145	167	170	174	169	178	173
5	160	178	170	172	370	145	162	170	171	179	176	172
6	163	182	175	174	163	140	167	171	169	172	175	170
7	162	178	170	175	165	132	170	168	166	175	177	173
8	162	167	190	171	165	130	168	170	165	175	172	165
9	158	169	185	171	165	130	177	168	161	175	174	158
10	160	165	175	168	164	140	167	165	166	166	174	174
11	158	160	175	161	165	135	160	167	164	165	178	168
12	158	158	165	164	160	129	158	188	169	166	179	158
13	158	140	160	165	154	129	167	169	172	172	183	154
14	161	163	175	162	155	143	167	172	170	178	181	159
15	176	157	170	161	167	155	166	184	171	174	178	158
16	159	163	165	162	167	157	169	178	171	167	174	164
17	158	160	160	162	171	158	169	179	159	163	174	169
18	158	165	160	162	173	155	188	178	169	165	176	165
19	163	160	155	158	175	158	178	173	168	170	157	168
20	163	167	155	158	170	163	177	176	169	170	159	169
21	161	183	160	156	169	170	173	177	168	172	151	165
22	163	181	160	158	157	156	172	178	168	177	154	167
23	159	160	165	158	153	170	166	178	167	173	158	170
24	186	159	165	162	155	169	163	174	167	173	162	165
25	157	160	165	159	152	173	159	175	159	167	161	167
26	167	155	165	159	153	195	156	173	158	169	176	163
27	159	160	165	159	153	190	157	178	160	165	167	163
28	160	165	165	165	150	183	157	172	160	161	167	163
29	158	156	175	168	---	186	158	172	149	164	165	165
30	158	158	175	162	---	186	156	172	182	160	167	166
31	157	---	170	162	---	180	---	164	---	165	167	---

06786000 NORTH LOUP RIVER AT TAYLOR, NE--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15.0	13.5	.0	.0	.0	.5	5.0	13.5	23.0	23.0	28.0	29.0
2	8.0	15.0	2.0	.0	.0	.5	4.5	13.5	22.0	27.0	29.0	24.0
3	7.5	15.0	4.0	.0	.0	.0	7.5	15.0	24.0	32.0	28.5	21.5
4	5.0	14.0	2.0	.0	.0	.5	10.5	14.0	26.5	24.0	29.5	26.0
5	8.0	9.0	3.0	.0	.0	2.0	8.0	13.5	27.0	20.0	24.5	28.0
6	5.0	12.0	.0	.0	.0	.5	8.5	18.0	27.5	17.5	27.5	26.0
7	8.0	11.0	.0	.0	1.0	1.0	12.5	21.0	20.0	24.0	28.0	26.0
8	18.0	12.0	.0	.0	3.0	3.0	9.0	13.0	17.0	23.0	29.5	27.0
9	18.0	7.0	.0	.0	.0	2.0	13.0	11.0	15.0	28.0	27.0	21.0
10	18.0	4.5	3.0	.0	.5	2.0	6.0	10.0	14.0	31.0	23.5	28.0
11	15.0	2.0	2.0	.0	1.0	2.5	6.5	8.5	25.0	29.0	19.5	22.0
12	13.0	3.0	2.5	.0	.0	13.0	7.0	8.5	29.0	30.5	19.0	18.0
13	12.5	5.5	.0	.0	.0	2.5	11.5	9.5	27.5	30.0	25.0	19.0
14	8.0	3.5	1.5	.0	1.5	4.0	15.5	10.0	27.5	28.0	24.0	20.5
15	12.0	5.0	2.0	.0	.0	5.0	13.0	15.0	28.0	24.5	17.0	22.0
16	10.5	4.0	1.0	.0	.0	5.5	20.0	15.0	28.0	21.5	23.0	22.5
17	13.5	7.5	.0	.0	.0	13.0	19.0	17.5	27.0	25.0	27.5	24.0
18	13.0	5.5	.5	.0	.0	5.5	17.5	16.5	27.5	26.5	24.0	22.5
19	16.0	4.0	.5	.0	1.0	5.0	19.0	18.5	22.5	28.0	24.5	21.0
20	18.0	.5	.0	.0	1.0	9.0	18.0	17.0	24.0	28.5	26.0	20.5
21	15.5	4.0	.5	.0	.0	7.0	18.5	21.0	28.0	31.0	24.0	20.0
22	8.0	1.0	.0	.0	1.0	4.0	14.5	20.5	22.0	23.0	24.0	21.0
23	10.5	2.5	.0	.0	1.5	4.5	16.5	21.0	22.5	28.0	26.5	15.0
24	14.0	2.5	1.5	1.0	3.5	8.0	17.0	23.0	20.5	25.0	24.5	22.0
25	8.0	2.0	1.0	.0	3.0	3.5	14.0	23.5	27.5	28.0	24.5	22.0
26	12.0	1.0	.0	.0	2.0	3.5	17.0	23.0	29.0	25.0	19.0	23.0
27	12.0	1.0	1.0	.0	1.5	5.0	18.0	16.5	28.0	30.0	25.0	23.0
28	14.0	.5	.0	.0	.0	12.5	14.0	25.0	28.5	28.0	24.5	24.0
29	14.0	1.0	.0	.0	---	7.0	17.0	25.5	29.0	25.0	28.0	23.0
30	11.0	2.0	.0	.0	---	8.0	17.5	16.5	29.0	28.5	28.0	15.0
31	12.0	---	.0	.0	---	4.0	---	22.0	---	27.5	30.0	---

06787000 CALAMUS RIVER NEAR HARROP, NE

LOCATION.--Lat 41°56'48", long 99°23'10" in NE1/4SE1/4 sec.22, T.23 N., R.18 W., Loup County, Hydrologic Unit 10210008, on right bank 44 ft (13 m) upstream from bridge on U.S. Highway 183, 12.2 mi (19.6 km) north of Taylor.

DRAINAGE AREA.--983 mi² (2,546 km²), most of which does not contribute directly to surface runoff.

PERIOD OF RECORD.--March to July 1932. August 1931 to February 1932, July 1932 to June 1939, 1955-1964 and 1977, gage heights or discharge measurements only. June 1978 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 2,260 ft (689 m) from topographic map. Prior to June 5, 1978 staff gage or reference point at same site at datum 1.0 ft (0.30 m) higher.

REMARKS.--Records excellent. Diversions for irrigation above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 426 ft³/s (12.1 m³/s) Mar. 23, 1979, gage height, 2.06 ft (0.628 m); maximum gage height, 2.63 ft (0.802 m) Feb. 16, 1979, backwater from ice; minimum daily discharge, 94 ft³/s (2.66 m³/s) Dec. 3, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 426 ft³/s (12.1 m³/s) Mar. 23, gage height, 2.06 ft (0.628 m); minimum daily, 94 ft³/s (2.66 m³/s) Dec. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	218	213	235	175	210	241	272	230	272	237	208	181
2	215	216	135	190	220	247	275	231	275	226	203	181
3	219	216	94	180	210	220	272	224	249	225	195	183
4	218	221	160	175	205	190	269	226	234	222	191	182
5	216	215	200	180	220	225	265	225	216	243	187	180
6	214	216	230	185	210	279	258	227	211	281	186	179
7	217	217	220	180	220	264	256	225	223	282	182	178
8	221	221	215	175	205	281	245	230	250	300	182	201
9	221	222	215	185	222	313	237	270	271	284	188	201
10	224	221	222	180	215	302	232	285	286	264	187	199
11	225	211	234	180	225	311	282	271	261	246	187	221
12	224	215	247	175	239	349	317	262	256	235	186	258
13	232	228	230	165	242	383	320	252	236	225	187	267
14	226	221	235	155	244	368	322	246	220	218	186	253
15	227	218	235	175	170	356	305	239	203	231	189	260
16	222	224	225	200	180	352	278	234	201	240	194	258
17	225	230	220	205	190	351	269	229	231	249	192	227
18	222	227	225	200	210	357	262	248	239	240	205	218
19	222	216	215	200	215	373	255	300	230	232	300	216
20	223	212	200	205	219	348	268	285	216	225	240	214
21	223	202	205	200	235	364	242	262	207	204	224	212
22	224	205	210	215	249	403	237	245	201	202	211	209
23	228	225	190	225	230	411	234	230	211	200	201	209
24	224	228	150	195	220	398	234	228	210	265	198	212
25	223	225	210	205	225	373	232	223	256	264	193	212
26	221	236	210	200	238	332	231	219	253	242	206	206
27	219	231	210	200	253	298	225	216	278	242	196	209
28	214	225	220	200	242	296	227	217	270	246	198	206
29	217	228	175	200	---	288	222	215	256	252	192	209
30	213	230	140	195	---	278	221	280	244	241	188	214
31	212	---	160	200	---	265	---	277	---	222	184	---
TOTAL	6849	6615	6272	5900	6163	9816	7764	7551	7166	7405	6168	6355
MEAN	221	221	202	190	220	317	259	244	239	241	199	212
MAX	232	236	247	225	253	411	322	300	286	300	300	267
MIN	212	202	94	155	170	190	221	215	201	200	182	178
AC-FT	13580	13120	12440	11700	12220	19470	15400	14980	14210	14850	12230	12610

WTR YR 1979 TOTAL 84104 MEAN 230 MAX 411 MIN 94 AC-FT 166800

06787500 CALAMUS RIVER NEAR BURWELL, NE

LOCATION.--Lat 41°48'35", long 99°10'56", in NW1/4NW1/4 sec.9, T.21 N., R.16 W., Garfield County, Hydrologic Unit 10210008, on left bank 210 ft (64 m) downstream from highway bridge, 1.5 mi (2.4 km) upstream from mouth, and 3 mi (5 km) northwest of Burwell.

DRAINAGE AREA.--1,060 mi² (2,750 km²), approximately, of which about 110 mi² (280 km²) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1940 to current year.

REVISED RECORDS.--WSP 1918: 1958. WDR NE-72: Drainage area.

GAGE (REVISED).--Water-stage recorder. Datum of gage is 2,156.48 ft (657.295 m) National Geodetic Vertical Datum of 1929 (levels by Water and Power Resources Service, formerly Bureau of Reclamation). Prior to Apr. 20, 1945, nonrecording gage at site 210 ft (64 m) upstream at present datum. Apr. 21, 1945, to Jan. 28, 1964, water-stage recorder at site 210 ft (64 m) downstream at present datum. Jan. 29, 1964 to Oct. 4, 1977, water-stage recorder at site 40 ft (12 m) downstream at present datum.

REMARKS.--Records good except those for winter period, which are poor. Diversions for irrigation above station.

AVERAGE DISCHARGE.--39 years, 300 ft³/s (8.496 m³/s), 217,400 acre-ft/yr (0.268 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,790 ft³/s (50.7 m³/s) May 4, 1964, gage height, 4.35 ft (1.326 m); maximum gage height, 5.90 ft (1.798 m) Jan. 26, 1967, backwater from ice; minimum daily discharge, 54 ft³/s (1.53 m³/s) Dec. 5, 1950.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 491 ft³/s (13.9 m³/s) Mar. 22, gage height, 3.66 ft (1.116 m); maximum gage height, 5.35 ft (1.631 m) Dec. 24, backwater from ice; minimum daily discharge, 170 ft³/s (4.81 m³/s) Dec. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	277	288	298	290	290	330	346	309	313	290	294	257
2	277	290	210	350	300	340	358	322	322	280	289	255
3	274	291	170	340	290	310	362	314	315	270	280	258
4	276	298	220	300	280	280	357	322	295	280	272	259
5	277	292	260	310	300	320	350	324	280	320	267	258
6	272	293	290	310	290	380	363	325	271	336	270	255
7	282	288	280	300	300	356	364	321	275	348	267	253
8	284	288	280	290	280	362	352	318	293	375	261	275
9	283	288	290	290	290	383	344	342	331	342	264	272
10	283	284	300	280	280	397	339	371	370	320	260	266
11	287	288	310	280	290	392	393	360	348	302	261	267
12	285	293	340	260	300	448	424	346	342	288	260	320
13	283	298	340	250	300	459	408	337	331	275	256	331
14	282	298	340	240	330	461	406	322	306	267	258	311
15	282	293	340	260	260	438	401	311	284	280	260	316
16	283	293	320	280	270	438	370	310	275	288	264	316
17	284	293	310	280	280	445	346	294	320	298	267	302
18	279	293	310	280	290	454	341	296	316	293	276	285
19	279	288	300	280	300	448	336	341	316	288	399	274
20	282	250	290	280	300	431	346	348	298	288	318	271
21	277	250	300	280	320	442	325	335	284	280	301	261
22	285	260	300	290	330	488	314	322	280	271	295	262
23	285	280	280	300	320	467	311	306	293	271	284	266
24	286	297	240	310	300	485	312	302	288	353	283	269
25	280	293	280	300	310	469	325	298	320	326	278	268
26	283	309	280	290	320	425	311	297	316	320	293	267
27	285	305	290	290	340	385	301	292	342	311	291	268
28	289	305	290	280	330	372	304	285	326	326	286	266
29	292	298	270	280	---	357	306	277	306	331	279	263
30	290	301	230	270	---	349	302	308	300	316	272	263
31	286	---	250	280	---	338	---	329	---	305	267	---
TOTAL	8749	8685	8808	8920	8390	12449	10417	9884	9256	9438	8672	8254
MEAN	282	290	284	288	300	402	347	319	309	304	280	275
MAX	292	309	340	350	340	488	424	371	370	375	399	331
MIN	272	250	170	240	260	280	301	277	271	267	256	253
AC-FT	17350	17230	17470	17690	16640	24690	20660	19600	18360	18720	17200	16370

CAL YR 1978 TOTAL 114248 MEAN 313 MAX 595 MIN 170 AC-FT 226600
WTR YR 1979 TOTAL 111922 MEAN 307 MAX 488 MIN 170 AC-FT 222000

06787500 CALAMUS RIVER NEAR BURWELL, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water year 1972 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1971 to September 1977.
WATER TEMPERATURES: October 1971 to September 1976.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 221 micromhos May 17, 1972; minimum daily, 105 micromhos Aug. 13, 1976.
WATER TEMPERATURES: Maximum, 32.0°C June 30, 1973; minimum, 0.0°C on many days during winter periods.

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	COLOR (PLAT-INUM-COBALT UNITS) (00080)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)
OCT									
10...	1210	287	136	7.2	14.0	--	53	0	17
NOV									
01...	1305	291	132	7.2	12.5	--	53	0	17
DEC									
12...	1025	333	130	7.8	.5	--	53	0	17
JAN									
24...	1420	294	135	7.5	.5	--	57	0	18
FEB									
13...	1500	307	136	7.1	.5	--	50	0	16
MAR									
30...	1025	348	145	7.3	4.5	--	54	0	17
APR									
17...	1000	342	150	7.4	15.5	--	57	0	18
MAY									
29...	1535	270	141	7.6	27.0	--	56	0	18
JUN									
19...	1515	316	139	7.3	24.0	--	56	0	18
JUL									
05...	1350	319	133	7.4	17.5	--	51	0	16
AUG									
21...	1635	300	139	7.2	25.5	--	50	0	16
SEP									
11...	1500	275	142	7.3	21.0	5	50	0	16

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)
OCT									
10...	2.6	5.9	.4	4.8	65	6.6	1.1	.2	47
NOV									
01...	2.6	5.8	.3	4.7	61	5.4	1.1	.2	52
DEC									
12...	2.6	5.9	.4	5.3	57	2.9	1.5	.2	53
JAN									
24...	2.9	6.5	.4	4.7	57	6.9	1.6	.2	56
FEB									
13...	2.5	5.4	.3	4.0	59	4.8	1.2	.2	48
MAR									
30...	2.8	6.9	.4	5.2	66	3.3	1.3	.3	45
APR									
17...	2.9	7.1	.4	5.3	62	5.8	1.8	.3	42
MAY									
29...	2.7	6.2	.4	5.2	59	5.9	.8	.3	45
JUN									
19...	2.7	5.6	.3	4.6	56	4.9	1.3	.3	46
JUL									
05...	2.6	5.5	.3	4.1	57	3.8	.8	.2	52
AUG									
21...	2.4	5.5	.3	5.1	57	4.8	.9	.2	51
SEP									
11...	2.5	6.0	.4	4.4	59	5.9	.9	.3	50

06787500 CALAMUS RIVER NEAR BURWELL, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P) (00666)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)
OCT									
10...	--	--	--	.55	--	.12	30	80	10
NOV									
01...	--	--	--	.58	--	.13	30	40	3
DEC									
12...	126	.17	113	.75	--	.16	20	30	3
JAN									
24...	134	.18	106	.74	--	.17	30	70	3
FEB									
13...	121	.16	100	.79	--	.16	40	70	10
MAR									
30...	124	.17	117	.53	--	.17	60	80	5
APR									
17...	123	.17	114	.48	--	.16	80	90	0
MAY									
29...	120	.16	87.5	.00	--	.12	0	40	0
JUN									
19...	119	.16	102	.44	--	.16	20	40	0
JUL									
05...	121	.16	104	.41	--	.13	20	40	9
AUG									
21...	122	.17	98.8	.45	--	.12	20	60	3
SEP									
11...	123	.17	91.3	.38	.15	.13	20	30	20

06788500 NORTH LOUP RIVER AT ORD, NE

LOCATION.--Lat 41°36'27", long 98°55'17", in SW1/4NW1/4 sec.22, T.19 N., R.14 W., Valley County, Hydrologic Unit 10210007, on right bank 150 ft (46 m) downstream from bridge on State Highway 70 at Ord.

DRAINAGE AREA.--3,750 mi² (9,710 km²), approximately, of which about 700 mi² (1,810 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--November 1936 to September 1938 (published as "near Ord"), June 1952 to current year.

REVISED RECORDS.--WSP 1730: 1957(M). WDR NE-74: Drainage area. WDR NE-75: 1974.

GAGE.--Water-stage recorder. Datum of gage is 2,012.14 ft (613.300 m) National Geodetic Vertical Datum of 1929. Nov. 25, 1936, to Sept. 30, 1938, nonrecording gage at site 2 mi (3 km) downstream at different datum.

REMARKS.--Records good except those for winter period, which are poor. Diversions above station for irrigation. Flow includes return water from North Loup irrigation project.

AVERAGE DISCHARGE.--28 years (1937-38, 1952-79), 866 ft³/s (24.53 m³/s), 627,400 acre-ft/yr (0.774 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,100 ft³/s (286 m³/s) June 7, 1962, gage height, 5.52 ft (1.682 m); maximum gage height, 5.56 ft (1.695 m) Feb. 9, 1966, backwater from ice; minimum daily discharge, 100 ft³/s (2.83 m³/s) Jan. 3, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, about 2,300 ft³/s (65.1 m³/s) Mar. 15, backwater from ice; maximum gage height, 5.30 ft (1.615 m) Mar. 10, backwater from ice; minimum daily discharge, 150 ft³/s (4.25 m³/s) Dec. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	890	891	920	820	860	980	1240	996	982	1050	635	601
2	929	902	500	880	900	1040	1250	1040	923	968	656	604
3	924	913	150	860	860	960	1260	941	871	908	581	624
4	860	924	170	800	820	900	1230	930	815	905	508	595
5	871	902	250	800	860	1100	1230	919	772	926	510	522
6	866	891	640	800	820	1500	1230	919	743	1020	486	471
7	894	880	800	780	840	1450	1250	842	786	1030	449	496
8	910	870	740	760	820	1350	1200	941	820	1110	437	691
9	915	902	740	740	860	1400	1200	1030	996	1000	418	631
10	879	913	760	720	840	1500	1170	1420	1040	850	457	830
11	875	860	780	680	860	1600	1270	1390	986	790	485	705
12	866	840	800	640	900	1700	1310	1210	945	735	458	791
13	860	840	840	620	940	1800	1320	1090	902	664	465	950
14	870	830	860	600	1000	2000	1370	1070	880	565	460	1040
15	884	870	900	660	940	2100	1340	1030	784	549	459	965
16	898	870	960	700	880	2000	1280	1010	794	614	492	911
17	902	880	960	700	860	1750	1190	1030	867	664	481	851
18	891	870	940	720	820	1640	1170	1020	985	699	536	771
19	870	830	920	720	800	1660	1140	1110	974	690	909	738
20	670	800	880	740	800	1540	1480	1170	920	614	865	723
21	891	764	840	760	860	1620	1240	1080	874	549	797	696
22	935	711	800	800	840	1980	1030	1030	825	472	873	685
23	891	824	740	840	820	1880	996	935	874	480	883	684
24	870	903	640	940	820	1670	974	902	876	605	806	686
25	880	926	820	920	880	1570	1180	850	987	656	762	693
26	880	891	860	860	920	1510	1050	830	1010	614	765	697
27	870	930	860	860	960	1370	1030	780	1110	708	791	686
28	880	883	860	840	940	1230	1020	735	1080	762	784	700
29	902	947	840	820	---	1240	996	753	1500	762	738	722
30	902	974	740	780	---	1220	963	1000	1190	762	691	752
31	899	---	780	820	---	1200	---	1050	---	744	614	---
TOTAL	27524	26231	23290	23980	24320	46460	35609	31053	28031	23473	19251	21511
MEAN	888	874	751	774	869	1499	1187	1002	934	757	621	717
MAX	935	974	960	940	1000	2100	1480	1420	1500	1110	909	1040
MIN	860	711	150	600	800	900	963	735	743	472	418	471
AC-FT	54590	52030	46200	47560	48240	92150	70630	61590	55600	46560	38180	42670

CAL YR 1978 TOTAL 331140 MEAN 907 MAX 3900 MIN 150 AC-FT 656800
WTR YR 1979 TOTAL 330733 MEAN 906 MAX 2100 MIN 150 AC-FT 656000

06790500 NORTH LOUP RIVER NEAR ST. PAUL, NE

LOCATION.--Lat 41°15'35", long 98°26'50", in SW1/4SW1/4NE1/4 sec.22, T.15 N., R.10 W., Howard County, Hydrologic Unit 10210007, on right bank 310 ft (94 m) downstream from bridge on U.S. Highway 281, 3 mi (5 km) north of St. Paul, and 4 mi (6 km) upstream from confluence with Middle Loup River.

DRAINAGE AREA.--4,290 mi² (11,100 km²), approximately, of which about 1,240 mi² (3,210 km²) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1894 to September 1915, August 1928 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 976: 1942. WSP 1390: 1896. WDR NE-74: Drainage area. WDR NE-75: 1974.

GAGE.--Water-stage recorder. Datum of gage is 1,759.29 ft (536.232 m), adjusted, National Geodetic Vertical Datum of 1929. See WSP 1918 for history of changes prior to Oct. 1, 1954.

REMARKS.--Records good except those for winter period, which are poor. Natural flow affected by diversions and ground-water withdrawals for irrigation and return flow from irrigated areas.

AVERAGE DISCHARGE.--72 years, 968 ft³/s (27.41 m³/s), 701,300 acre-ft/yr (0.865 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 90,000 ft³/s (2,550 m³/s), estimated, June 6, 1896, gage height, 14.9 ft (4.54 m), from floodmark, datum then in use; minimum daily since 1931, 85 ft³/s (2.41 m³/s) Aug. 8, 1941.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,640 ft³/s (103 m³/s) Mar. 22; maximum gage height, 8.13 ft (2.478 m) Mar. 15, ice jam; minimum daily discharge, 180 ft³/s (5.10 m³/s) Dec. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	738	908	960	880	920	1060	1590	894	1270	1180	762	667
2	825	889	560	940	960	1100	1490	1260	1130	1020	890	666
3	900	881	300	920	920	1040	1410	1100	1010	942	708	646
4	914	878	180	880	860	980	1350	914	911	1060	599	648
5	914	889	230	860	900	1200	1400	886	821	998	542	622
6	872	869	700	860	880	1600	1340	900	768	950	519	577
7	818	897	860	840	900	1550	1330	914	747	1010	470	531
8	782	910	800	800	880	1500	1330	928	782	1030	406	573
9	770	925	820	780	920	1700	1240	1270	964	1130	373	734
10	770	934	820	760	900	1800	1290	1620	1130	995	422	678
11	806	935	860	720	940	2000	1300	1550	1100	879	433	939
12	818	883	880	680	960	2200	1570	1270	1020	800	429	870
13	770	858	900	660	1000	2400	1480	1100	932	714	417	1020
14	797	885	940	640	1060	2600	1440	1060	866	646	422	1130
15	870	935	980	700	1000	2800	1380	1030	788	630	457	1170
16	854	992	1040	740	940	3000	1410	956	718	547	474	1020
17	883	990	1040	760	920	2900	1340	928	753	630	509	936
18	910	1030	1000	760	880	2700	1230	1150	853	690	561	865
19	906	1100	960	780	860	2600	1240	1000	958	722	742	789
20	918	1060	940	780	860	2400	1460	1100	954	722	1040	765
21	918	913	900	820	940	2110	1330	1200	887	640	984	772
22	997	752	860	860	920	3380	1180	1050	865	547	876	772
23	1020	749	800	900	900	3080	1050	952	871	488	924	775
24	934	959	700	980	900	2280	959	872	926	794	912	773
25	915	1060	880	960	960	2000	1080	824	893	758	844	769
26	903	1100	920	920	980	1930	1230	788	956	719	820	742
27	929	1080	940	900	1040	1740	1060	767	986	662	771	752
28	894	1050	920	880	1000	1830	1000	746	1310	754	809	774
29	854	919	900	860	---	1750	979	763	1130	814	798	799
30	864	964	800	840	---	1700	918	965	1600	820	735	813
31	879	---	840	860	---	1550	---	1350	---	800	697	---
TOTAL	26942	28194	25230	25520	26100	62480	38446	32107	28899	25091	20345	23607
MEAN	869	940	814	823	932	2015	1282	1036	963	809	656	787
MAX	1020	1100	1040	980	1060	3380	1590	1620	1600	1180	1040	1170
MIN	738	749	180	640	860	980	918	746	718	488	373	531
AC-FT	53440	55920	50040	50620	51770	123900	76260	63680	57320	49770	40350	46820

CAL YR 1978 TOTAL 353958 MEAN 970 MAX 6400 MIN 180 AC-FT 702100
WTR YR 1979 TOTAL 362961 MEAN 994 MAX 3380 MIN 180 AC-FT 719900

06790500 NORTH LOUP RIVER NEAR ST. PAUL, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1946-53, 1974 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: July 1974 to September 1978.
WATER TEMPERATURES: July 1974 to September 1978.
SUSPENDED SEDIMENT DISCHARGE: April 1946 to June 1953.

EXTREMES FOR PERIOD OF RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 426 micromhos Jan. 18, 1976; minimum daily, 138 micromhos Oct. 21, 1977.
WATER TEMPERATURES: Maximum 34.0°C July 17, 1978; minimum, 0.0°C on many days during winter periods.
SEDIMENT CONCENTRATIONS: Maximum daily, 17,400 mg/L Apr. 27, 1951; minimum daily, not determined.
SEDIMENT LOADS: Maximum daily, 463,000 tons (421,000 tonnes) June 22, 1947; minimum daily, 20 tons (18 tonnes) Aug. 3, 1946, Feb. 22, 1953.

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (JTU) (00070)	OXYGEN, DIS-SOLVED (MG/L) (00300)
OCT							
16...	1450	857	202	7.9	12.5	20	11.4
NOV							
07...	1350	888	211	7.6	10.0	15	12.3
DEC							
18...	1340	1020	226	7.2	.5	10	13.6
JAN							
08...	1110	795	238	7.1	.5	8	11.5
FEB							
20...	1010	865	224	6.9	.5	8	9.6
MAR							
19...	1120	2670	252	7.5	2.0	40	12.8
APR							
02...	1225	1490	227	7.8	5.0	25	12.5
MAY							
14...	1440	995	227	7.7	18.5	15	9.7
JUN							
04...	1045	859	213	8.2	23.0	25	9.4
JUL							
16...	1120	534	227	8.3	25.5	20	8.9
AUG							
06...	1130	519	236	8.2	28.0	20	8.3
SEP							
17...	1050	922	205	7.9	18.5	20	9.3

DATE	TIME	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)
FEB										
20...	1010	89	0	28	4.6	8.1	.4	5.9	91	7.8
JUL										
16...	1120	96	0	30	5.1	7.8	.3	7.2	110	8.8

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P) (00666)	BORON, DIS-SOLVED (UG/L AS B) (01020)
FEB										
20...	1.9	.3	55	176	170	.24	411	.91	.20	30
JUL										
16...	2.1	.3	52	186	179	.25	268	.00	.20	50

06791500 CEDAR RIVER NEAR SPALDING, NE

LOCATION.--Lat 41°42'41", long 98°26'48", in NE1/4NE1/4NE1/4 sec.15, T.20 N., R.10 W., Greeley County, Hydrologic Unit 10210010, on left bank 15 ft (5 m) downstream from bridge on county road, 0.4 mi (0.6 km) upstream from small tributary, and 4.7 mi (7.6 km) northwest of Spalding.

DRAINAGE AREA.--762 sq mi, approximately, of which about 50 mi^2 (130 km^2) contributes directly to surface runoff.

PERIOD OF RECORD.--October 1944 to September 1953, October 1957 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WDR NE-73: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,896.24 ft (577.974 m) National Geodetic Vertical Datum of 1929. Prior to Jan. 4, 1961, at two sites 6.5 mi (10.5 km) upstream at different datum.

REMARKS.--Records good except those for winter periods, which are poor.

AVERAGE DISCHARGE.--31 years, 154 ft^3/s (4.361 m^3/s), 111,600 acre-ft/yr (0.138 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,000 ft^3/s (113 m^3/s) June 23, 1947, gage height, 7.50 ft (2.286 m), site and datum then in use, from rating curve extended above 640 ft^3/s (18.1 m^3/s) on basis of slope-area measurement of peak flow; minimum daily, 30 ft^3/s (0.85 m^3/s) Jan. 30, 1946.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 300 ft^3/s (8.50 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Mar. 6	1030	ice jam		*5.98	1.823	Mar. 22	0300	380	10.8	4.22	1.286
Mar. 18	1900	314	8.9	4.03	1.228	May 2	0630	*460	13.0	*4.38	1.335

Minimum daily discharge, 105 ft^3/s (2.97 m^3/s) Aug. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	116	143	142	120	120	180	174	202	181	143	126	133
2	116	144	130	125	115	195	179	359	173	139	122	133
3	115	144	120	130	135	170	181	224	165	140	117	127
4	115	143	135	125	120	185	182	191	153	159	114	119
5	114	140	130	120	130	200	180	174	139	156	111	120
6	116	137	120	130	140	220	176	167	130	153	112	117
7	117	138	120	125	125	200	176	162	128	150	108	118
8	119	140	110	130	120	205	170	181	132	152	105	135
9	122	143	120	130	135	210	161	226	149	153	113	132
10	120	142	130	135	140	240	158	241	165	147	215	129
11	122	139	135	140	135	236	175	243	159	138	136	125
12	122	140	160	145	130	255	244	251	154	130	126	133
13	123	147	150	130	140	288	217	250	145	125	120	136
14	125	146	155	125	170	276	216	258	135	119	120	135
15	126	146	170	135	160	276	239	225	127	115	128	132
16	126	144	160	145	130	271	270	191	123	112	131	130
17	129	144	165	160	135	261	267	186	129	116	133	129
18	130	142	160	155	155	281	228	223	135	119	179	122
19	132	139	165	150	180	272	207	187	146	119	239	118
20	133	138	150	140	175	265	255	181	152	117	204	118
21	133	130	160	145	160	259	209	176	146	117	178	119
22	142	135	165	160	175	358	200	173	140	112	171	116
23	156	145	160	140	160	345	190	160	148	112	165	118
24	191	150	150	140	150	304	195	157	158	146	168	121
25	181	148	160	150	170	285	210	151	173	147	173	124
26	173	147	155	140	190	287	240	152	183	179	167	123
27	169	145	160	130	175	268	220	153	211	184	158	123
28	162	141	160	120	160	243	200	150	186	161	156	127
29	156	135	150	115	---	215	180	148	162	150	152	127
30	147	144	135	115	---	195	170	193	149	169	124	127
31	142	---	125	110	---	179	---	196	---	146	129	---
TOTAL	4190	4259	4507	4160	4130	7624	6069	6131	4576	4325	4500	3766
MEAN	135	142	145	134	148	246	202	198	153	140	145	126
MAX	191	150	170	160	190	358	270	359	211	184	239	136
MIN	114	130	110	110	115	170	158	148	123	112	105	116
AC-FT	8310	8450	8940	8250	8190	15120	12040	12160	9080	8580	8930	7470

CAL YR 1978 TOTAL 61285 MEAN 168 MAX 740 MIN 105 AC-FT 121600
WTR YR 1979 TOTAL 58237 MEAN 160 MAX 359 MIN 105 AC-FT 115500

06792000 CEDAR RIVER NEAR FULLERTON, NE

LOCATION.--Lat 41°23'45", long 98°00'15", in NE1/4NE1/4 sec.4, T.16 N., R.6 W., Nance County, Hydrologic Unit 10210010, near left bank on downstream side of pier of highway bridge, 3 mi (5 km) northwest of Fullerton and 7.2 mi (11.6 km), revised, upstream from mouth.

DRAINAGE AREA.--1,220 mi^2 (3,160 km^2), approximately, of which about 480 mi^2 (1,240 km^2) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1931 to June 1932, October 1940 to current year.

REVISED RECORDS.--WSP 1086: Drainage area. WSP 1390: 1932, 1941, 1943. WSP 1710: 1951(P), 1952(M), 1953, 1955(M).

GAGE.--Water-stage recorder. Datum of gage is 1,638.39 ft (499.381 m) National Geodetic Vertical Datum of 1929. Prior to Nov. 5, 1942, nonrecording gage, Nov. 5, 1942, to June 23, 1947, water-stage recorder, June 24, 1947, to Apr. 6, 1948, nonrecording gage, Apr. 7, 1948 to Apr. 15, 1971, water-stage recorder, all at present site at datum 2.00 ft (0.610 m) higher.

REMARKS.--Records good except those for winter period, which are poor. Natural flow affected by power developments, ground-water and surface-water withdrawals for irrigation, and return flow from irrigated areas.

AVERAGE DISCHARGE.--39 years (1940-79), 240 ft^3/s (6.797 m^3/s), 173,900 acre-ft/yr (0.214 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 64,700 ft^3/s (1,830 m^3/s) Aug. 13, 1966, gage height, 16.90 ft (5.151 m), present datum, from high point on surge, from rating curve extended above 6,600 ft^3/s (187 m^3/s) on basis of flow-over-highway-embankment and contracted-opening measurement of peak flow; minimum daily, 30 ft^3/s (0.85 m^3/s) July 18, 1974.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,500 ft^3/s (42.5 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Mar. 14	----	ice jam		*6.78	2.067	Mar. 22	0730	1560	44.2	4.27	1.301
Mar. 17	1130	*2070	58.6	4.85	1.478						

Minimum daily discharge, 94 ft^3/s (2.66 m^3/s) Aug. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979 MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	142	203	200	150	160	260	320	291	265	205	185	129
2	141	199	180	140	150	330	335	365	263	201	169	120
3	137	249	160	180	165	300	323	321	250	198	162	153
4	132	216	230	160	140	290	310	310	241	205	148	140
5	140	209	210	150	170	310	303	289	232	215	141	125
6	138	213	190	170	180	400	285	269	215	236	142	207
7	133	215	170	160	160	390	279	253	198	224	120	163
8	142	220	150	130	140	400	278	257	207	223	96	169
9	156	224	160	145	120	450	272	321	234	227	94	169
10	156	228	180	140	140	540	274	577	229	228	119	181
11	168	227	190	145	150	700	330	351	230	208	114	178
12	169	231	210	150	140	800	363	300	243	185	139	188
13	172	243	200	145	165	900	380	316	236	177	117	202
14	174	251	200	135	200	1000	348	315	231	174	116	196
15	180	262	210	150	150	1150	358	323	216	229	116	193
16	176	262	200	160	120	1400	367	304	212	191	122	192
17	175	268	190	170	130	1670	401	277	212	191	124	186
18	170	268	200	160	160	848	404	304	214	177	114	180
19	172	254	210	180	230	622	361	335	205	185	168	165
20	173	256	190	170	220	454	502	299	196	168	322	164
21	175	256	190	170	190	447	377	270	182	158	236	169
22	181	256	200	195	250	1240	354	257	188	183	216	169
23	195	257	190	150	220	827	331	266	194	127	190	169
24	198	342	170	165	180	546	337	245	190	217	186	166
25	206	280	210	175	190	474	349	228	189	285	184	159
26	201	250	200	170	230	447	370	220	187	171	208	160
27	196	230	195	160	280	411	344	208	320	204	214	163
28	192	200	230	150	260	399	317	207	372	409	202	167
29	190	230	200	130	---	389	268	203	240	212	210	163
30	187	220	170	140	---	374	259	225	219	177	199	153
31	191	---	160	145	---	329	---	224	---	198	172	---
TOTAL	5258	7219	5945	4820	4990	19097	10099	8930	6810	6384	5043	5034
MEAN	170	241	192	155	178	616	337	288	227	205	163	168
MAX	206	342	230	195	280	1670	502	577	372	409	322	207
MIN	132	199	150	130	120	260	259	203	182	127	94	120
AC-FT	10430	14320	11790	9560	9900	37880	20030	17710	13510	12580	10000	9980

CAL YR 1978 TOTAL 98200 MEAN 269 MAX 6660 MIN 78 AC-FT 194800
WTR YR 1979 TOTAL 89589 MEAN 245 MAX 1670 MIN 94 AC-FT 177700

06792000 CEDAR RIVER NEAR FULLERTON, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1958-59, 1974 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: July 1974 to current year.
WATER TEMPERATURES: July 1974 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 550 micromhos Jan. 1, 1978; minimum daily, 162 micromhos Nov. 9, 1977.
WATER TEMPERATURES: Maximum, 36.0°C July 7, 1975; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 332 micromhos July 19; minimum daily, 196 micromhos Feb. 1.
WATER TEMPERATURES: Maximum, 31.0°C July 26, Sept. 1; minimum, 0.5°C on many days during winter period.

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	COLOR (PLAT-INUM-COBALT UNITS) (00080)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)
OCT 24...	1615	48	280	8.0	13.5	--	120	0	39
NOV 30...	0930	283	285	8.1	1.0	--	130	0	39
DEC 19...	1420	209	265	8.4	.5	--	120	0	38
JAN 18...	1020	154	282	7.2	.5	--	120	0	38
FEB 13...	1015	165	282	7.2	.0	--	110	0	36
MAR 13...	1530	1050	215	7.7	1.5	--	79	3	24
APR 10...	1150	258	305	7.6	8.0	--	130	0	39
MAY 08...	1430	277	288	7.3	15.5	--	120	0	37
JUN 13...	1020	242	310	8.0	24.0	--	130	0	40
JUL 06...	1745	239	278	7.7	19.0	--	120	0	38
AUG 03...	1230	158	263	8.2	28.0	--	120	0	37
SEP 26...	1245	160	281	8.0	19.0	15	120	0	39

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)
OCT 24...	6.5	7.7	.3	7.1	120	14	2.9	.2	36
NOV 30...	6.8	8.9	.3	6.7	130	10	2.6	.2	46
DEC 19...	6.8	8.8	.3	6.9	130	9.6	2.6	.2	47
JAN 18...	6.3	9.6	.4	7.1	130	7.6	1.8	.2	49
FEB 13...	5.9	8.2	.3	6.1	120	9.0	1.9	.2	47
MAR 13...	4.6	6.5	.3	13	76	9.4	4.7	.2	17
APR 10...	7.1	9.8	.4	6.8	150	11	3.5	.3	41
MAY 08...	7.0	9.4	.4	7.5	130	11	2.1	.3	34
JUN 13...	7.1	10	.4	7.2	130	10	2.1	.2	35
JUL 06...	6.7	8.0	.3	7.4	130	11	2.0	.3	38
AUG 03...	5.6	6.2	.3	8.9	130	11	1.8	.3	38
SEP 26...	5.9	7.6	.3	6.9	130	7.2	1.8	.3	41

06792000 CEDAR RIVER NEAR FULLERTON, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P) (00666)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)
OCT									
24...	--	--	--	.11	--	.16	40	40	10
NOV									
30...	--	--	--	.78	--	.19	40	20	10
DEC									
19...	202	.27	114	.76	--	.18	30	30	10
JAN									
18...	208	.27	83.2	.56	--	.21	30	40	30
FEB									
13...	207	.28	92.2	.61	--	.23	70	50	18000
MAR									
13...	138	.18	369	.91	--	.42	90	200	110
APR									
10...	216	.29	146	.27	--	.21	50	40	20
MAY									
08...	187	.25	140	.00	--	--	40	20	7
JUN									
13...	190	.26	124	.00	--	.02	40	40	0
JUL									
06...	192	.26	124	.52	--	.27	40	50	2
AUG									
03...	188	.26	80.2	.11	--	.28	40	20	5
SEP									
26...	189	.26	81.6	.15	.30	.20	30	30	3

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	298	277	283	290	196	297	260	293	288	296	285	270
2	270	276	285	291	218	275	259	294	290	298	286	271
3	267	269	280	286	254	270	262	291	289	299	289	274
4	270	273	279	286	278	273	259	292	289	298	282	278
5	267	270	283	288	278	277	264	296	289	304	289	275
6	270	273	280	293	282	270	260	295	289	288	289	280
7	284	275	278	285	278	270	262	297	291	300	295	260
8	295	270	273	284	267	279	263	292	289	299	324	267
9	270	276	275	287	262	270	263	293	290	297	329	274
10	269	273	273	285	249	275	258	295	289	292	283	274
11	270	275	269	265	269	280	262	297	291	286	290	258
12	269	274	274	288	276	273	262	292	288	286	273	253
13	268	276	280	288	276	270	260	295	284	285	269	270
14	270	280	276	285	286	267	261	302	289	290	289	273
15	268	269	270	288	294	270	260	296	282	277	293	273
16	271	279	266	258	297	270	263	290	281	283	289	267
17	272	274	273	259	270	268	263	289	284	322	289	270
18	274	272	275	257	252	269	262	292	285	309	280	267
19	273	270	264	262	252	270	261	292	284	332	278	269
20	268	271	270	257	250	270	263	295	285	289	247	270
21	271	270	267	262	276	275	262	298	285	290	229	272
22	269	274	271	259	262	279	268	299	283	287	245	272
23	268	269	275	260	253	273	263	298	284	297	249	273
24	270	275	281	261	250	271	260	291	284	289	254	273
25	273	277	284	258	252	270	266	298	289	288	253	271
26	270	267	289	258	253	273	260	299	284	274	247	270
27	275	270	283	259	245	275	263	294	286	269	247	270
28	278	278	288	259	252	276	264	292	287	269	249	271
29	278	280	285	258	---	275	263	296	285	278	257	274
30	279	285	283	286	---	275	267	292	284	279	263	273
31	274	---	286	261	---	278	---	298	---	269	265	---

06792000 CEDAR RIVER NEAR FULLERTON, NE--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17.0	12.0	.5	1.0	.5	3.5	8.0	17.0	21.0	22.0	20.0	31.0
2	18.0	14.5	.5	.5	.5	4.0	7.0	15.0	21.0	22.0	23.0	24.0
3	16.0	15.0	.5	1.0	1.0	3.0	7.0	18.0	20.0	21.0	23.0	23.0
4	15.0	13.0	1.0	1.0	.5	4.0	8.0	16.0	22.0	22.0	24.0	23.0
5	15.0	15.5	.5	.5	.5	3.0	8.0	18.0	22.0	22.0	30.0	23.0
6	15.0	10.0	.5	1.0	1.0	4.0	9.0	20.0	22.0	19.0	25.0	22.0
7	12.0	14.5	.5	.5	.5	4.0	9.0	19.0	21.0	19.0	24.0	21.0
8	16.5	12.5	.5	1.0	1.0	5.0	8.0	20.0	20.0	22.0	24.0	22.0
9	18.0	12.5	.5	1.0	1.0	5.0	9.0	20.0	22.0	22.0	24.0	21.0
10	17.0	10.0	.5	1.0	1.0	6.0	9.0	21.0	22.0	24.0	22.0	21.0
11	15.0	6.5	.5	1.0	1.0	5.0	10.0	23.0	22.0	28.0	18.0	21.0
12	12.5	5.0	1.0	.5	1.0	5.5	9.0	20.0	22.0	28.0	26.0	19.0
13	13.0	5.5	.5	.5	1.0	5.0	11.0	21.0	21.0	30.0	24.0	17.0
14	14.0	4.0	1.0	.5	1.0	5.5	9.0	20.0	21.0	26.0	24.0	15.0
15	15.0	3.5	.5	.5	1.0	6.0	14.0	20.0	22.0	28.0	23.0	23.0
16	12.0	3.0	.5	.5	2.5	5.0	14.0	20.0	21.0	23.0	21.0	18.0
17	13.0	3.5	.5	.5	2.0	7.0	15.0	23.0	20.0	22.0	23.0	17.0
18	12.5	4.5	1.0	1.0	3.0	6.0	16.0	22.0	21.0	21.0	21.0	17.0
19	12.0	3.0	.5	1.0	3.0	5.0	15.0	20.0	21.0	22.0	23.0	17.0
20	10.0	2.0	.5	1.0	2.5	6.0	16.0	19.0	20.0	23.0	23.0	16.0
21	10.0	1.0	1.0	1.0	2.5	5.0	14.0	21.0	21.0	24.0	22.0	18.0
22	11.0	1.0	.5	1.5	3.0	6.0	14.0	24.0	21.0	25.0	25.0	18.0
23	12.0	1.5	.5	1.0	4.0	6.0	13.0	21.0	20.0	30.0	21.0	18.0
24	13.0	1.5	.5	1.0	3.0	7.0	12.0	25.0	20.0	23.0	19.0	18.0
25	11.0	1.0	.5	.5	3.0	8.0	13.0	24.0	22.0	24.0	25.0	23.0
26	14.0	1.0	.5	.5	3.0	8.0	14.0	23.0	21.0	31.0	26.0	23.0
27	10.0	.5	1.0	.5	3.5	7.0	11.0	21.0	21.0	27.0	20.0	24.0
28	12.0	1.0	1.0	1.0	3.0	6.0	15.0	20.0	22.0	24.0	21.0	17.0
29	13.0	1.0	.5	.5	---	7.0	16.0	19.0	21.0	26.0	21.0	16.0
30	14.0	1.0	.5	.5	---	7.0	15.0	22.0	21.0	24.0	23.0	18.0
31	14.0	---	.5	.5	---	7.0	---	24.0	---	23.0	27.0	---

06792499 LOUP RIVER POWER CANAL AT DIVERSION NEAR GENOA, NE
(National stream-quality accounting network station)

LOCATION.--Lat 41°23'31", long 97°49'20", in NE1/4NW1/4 sec.6, T.16 N., R.4 W., Nance County, Hydrologic Unit 10210009, at diversion structure, 2 miles upstream from gaging station and 5.5 miles southwest of Genoa.

PERIOD OF RECORD.--Water year 1973 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1972 to current year.
WATER TEMPERATURES: October 1972 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 479 micromhos June 1, 1977; minimum daily, 195 micromhos Feb. 20, 1977.
WATER TEMPERATURES: Maximum, 35.5°C July 21, 1974; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 347 micromhos Dec. 7; minimum daily, 224 micromhos Mar. 13.
WATER TEMPERATURES: Maximum, 32.0°C July 12, 13, Aug. 7, 8; 0.0°C on many days during winter period.

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (JTU) (00070)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)
OCT										
25...	1015	1080	260	7.9	8.5	40	25	10.9	2.6	K200
NOV										
30...	1130	30	260	7.5	1.5	20	24	13.3	--	K20
DEC										
20...	0945	1280	260	8.3	1.0	5	14	11.8	--	K40
JAN										
17...	0905	1450	283	7.5	.0	--	7.4	6.7	--	260
FEB										
13...	1110	1940	258	7.3	.0	10	9.3	8.6	--	280
MAR										
13...	1630	1670	240	7.5	1.5	--	78	7.0	--	K100
27...	1600	2950	279	8.0	6.5	65	--	8.9	--	<100
APR										
10...	1400	2320	293	7.8	8.0	--	34	9.5	--	K50
MAY										
08...	1600	2100	265	7.7	15.0	--	15	5.9	--	K115
JUN										
13...	1330	2100	287	8.5	28.0	--	20	9.2	--	87
JUL										
06...	1630	3140	269	7.7	19.0	--	300	--	8.3	K7800
AUG										
01...	1635	1540	268	8.1	30.0	60	22	9.1	--	1100
SEP										
25...	1400	1790	254	8.2	21.5	--	24	10.5	--	K70

DATE	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)
OCT									
25...	1420	100	0	33	5.4	11	.5	7.0	120
NOV									
30...	228	110	1	34	5.9	9.3	.4	6.6	110
DEC									
20...	268	120	0	36	6.1	9.4	.4	7.1	120
JAN									
17...	212	120	0	37	6.1	9.5	.4	7.8	130
FEB									
13...	144	110	0	34	5.6	9.1	.4	6.3	120
MAR									
13...	K26900	86	1	26	5.0	9.5	.4	11	85
27...	51000	--	--	--	--	--	--	--	--
APR									
10...	5200	110	0	35	6.3	11	.5	7.5	130
MAY									
08...	240	130	1	43	5.6	8.6	.3	6.9	130
JUN									
13...	88	120	0	38	5.8	9.1	.4	7.6	120
JUL									
06...	7800	110	0	35	6.1	8.8	.4	8.1	120
AUG									
01...	K56	99	0	31	5.2	6.8	.3	8.5	120
SEP									
25...	130	100	0	33	5.4	9.6	.4	6.8	120

K Results based on colony count outside the acceptable range (non-ideal colony count).

06792499 LOUP RIVER POWER CANAL AT DIVERSION NEAR GENOA, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS- SOLVED (TONS PER DAY) (70302)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)
OCT 25...	9.8	2.3	.2	44	184	185	.25	537	.53
NOV 30...	12	2.3	.2	51	195	188	.27	15.8	.81
DEC 20...	11	2.4	.2	55	194	199	.26	670	.73
JAN 17...	12	2.6	.3	60	222	213	.30	869	.85
FEB 13...	9.0	2.3	.3	56	187	199	.25	980	.75
MAR 13...	12	3.4	.2	24	151	142	.21	681	.78
27...	--	--	--	--	--	--	--	--	--
APR 10...	13	2.9	.4	50	213	204	.29	1330	.63
MAY 08...	12	2.5	.3	41	176	198	.24	998	.02
JUN 13...	12	2.4	.3	43	200	190	.27	1130	.01
JUL 06...	13	2.5	.3	45	196	191	.27	1660	.27
AUG 01...	10	2.6	.3	40	204	183	.28	848	.01
SEP 25...	4.7	3.2	.3	48	181	183	.25	875	.09

DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, NH4 + ORG. SUSP. TOTAL (MG/L AS N) (00624)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00666)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
OCT 25...	.03	.85	.88	.56	.32	1.4	.26	.16	6.8
NOV 30...	.12	.42	.54	.28	.26	1.4	.24	.18	--
DEC 20...	.03	.32	.35	.14	.21	1.1	.22	.19	4.6
JAN 17...	.04	.23	.27	.08	.19	1.1	.23	.22	2.3
FEB 13...	.05	.30	.35	.15	.20	1.1	.23	.20	--
MAR 13...	.46	1.3	1.8	.70	1.1	2.6	.60	.39	16
27...	--	--	--	--	--	--	--	--	--
APR 10...	.06	1.1	1.2	.85	.35	1.8	.30	.21	7.9
MAY 08...	.01	.26	.27	.24	.03	.29	.31	.14	--
JUN 13...	.05	.88	.93	.00	--	.94	.27	.02	10
JUL 06...	.10	1.9	2.0	1.8	.20	2.3	.60	.19	18
AUG 01...	.01	1.4	1.4	.91	.49	1.4	.67	.17	--
SEP 25...	.05	.86	.91	.63	.28	1.0	.23	.11	4.5

DATE	TIME	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA) (01007)	BARIUM, SUS- PENDED RECOV- ERABLE (UG/L AS BA) (01006)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CADMIUM SUS- PENDED RECOV- ERABLE (UG/L AS CD) (01026)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)
NOV 30...	1130	--	7	7	100	0	100	--	--	--	--
FEB 13...	1110	.75	7	6	200	100	100	70	--	--	--
MAY 08...	1600	--	8	9	200	100	100	--	3	2	1
AUG 01...	1635	--	10	9	200	100	100	--	1	0	<1

06792499 LOUP RIVER POWER CANAL AT DIVERSION NEAR GENOA, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) (01034)	CHROMIUM, SUSPENDED RECOV. (UG/L AS CR) (01031)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COBALT, TOTAL RECOVERABLE (UG/L AS CO) (01037)	COBALT, SUSPENDED RECOVERABLE (UG/L AS CO) (01036)	COBALT, DISSOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOVERABLE (UG/L AS CU) (01042)	COPPER, SUSPENDED RECOVERABLE (UG/L AS CU) (01041)	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOVERABLE (UG/L AS FE) (01045)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE) (01044)
NOV 30...	20	20	0	2	0	<3	4	2	2	1700	1700
FEB 13...	0	0	0	2	0	<3	5	3	2	730	700
MAY 08...	10	10	0	1	0	<3	0	0	0	1100	1100
AUG 01...	10	0	10	3	0	<3	7	7	0	3300	3300

DATE	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOVERABLF (UG/L AS PB) (01051)	LEAD, SUSPENDED RECOVERABLF (UG/L AS PB) (01050)	LEAD, DISSOLVED (UG/L AS PB) (01049)	MANGANESE, TOTAL RECOVERABLF (UG/L AS MN) (01055)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN) (01054)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	MERCURY SUSPENDED RECOVERABLE (UG/L AS HG) (71895)	MERCURY DISSOLVED (UG/L AS HG) (71890)	SELENIUM, TOTAL (UG/L AS SE) (01147)
NOV 30...	20	--	--	--	40	30	10	--	--	.3	2
FEB 13...	30	--	--	--	30	20	10	.0	.0	.0	1
MAY 08...	20	14	14	0	80	80	3	.2	.2	.0	1
AUG 01...	50	17	17	0	240	240	4	.0	--	--	1

DATE	SELENIUM, SUSPENDED TOTAL (UG/L AS SE) (01146)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOVERABLE (UG/L AS AG) (01077)	SILVER, SUSPENDED RECOVERABLE (UG/L AS AG) (01076)	SILVER, DISSOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	ZINC, SUSPENDED RECOVERABLE (UG/L AS ZN) (01091)	ZINC, DISSOLVED (UG/L AS ZN) (01090)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C) (00689)
NOV 30...	0	2	0	0	0	10	6	4	3.0	1.1
FEB 13...	1	0	1	0	1	30	20	10	2.5	.2
MAY 08...	0	1	0	0	0	30	20	10	4.4	--
AUG 01...	0	1	0	0	0	50	50	<3	3.8	2.5

06792499 LOUP RIVER POWER CANAL AT DIVERSION NEAR GENOA, NE--Continued

PHYTOPLANKTON ANALYSES, JULY 1978 TO AUGUST 1979

DATE	AUG 3,78	SEP 25,78	NOV 30,78	JAN 17,79	MAR 13,79
TIME	1230	1530	1130	0905	1630
TOTAL CELLS/ML	43000	110000	2600	440	2200
DIVERSITY: DIVISION	0.8	1.2	0.4	1.4	0.8
.CLASS	0.8	1.2	0.4	1.4	0.8
..ORDER	0.9	1.6	0.9	2.2	1.6
...FAMILY	2.0	2.0	2.5	2.6	2.9
....GENUS	2.5	2.3	3.0	3.1	3.4

ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)										
.CHLOROPHYCEAE										
..CHLOROCOCCALES										
...OOCYSTACEAE										
....GLOEOACTINIUM	--	-	--	-	--	-	--	-	--	-
...CHARACIACEAE										
....SCHROEDERIA	270	1	--	-	--	-	--	-	--	-
...COELASTRACEAE										
....COELASTRUM	3500	8	--	-	--	-	--	-	--	-
...HYDRODICTYACEAE										
....PEDIASTRUM	1100	3	2600	2	--	-	--	-	61	3
...MICRACTINIACEAE										
....GOLENKINIA	--	-	--	-	--	-	--	-	--	-
....MICRACTINIUM	--	-	--	-	--	-	--	-	--	-
...OOCYSTACEAE										
....ANKISTRODESMUS	4100	9	2600	2	--	-	--	-	--	-
....CHODATELLA	--	-	--	-	--	-	--	-	--	-
....DICTYOSPHAERIUM	1600	4	--	-	--	-	--	-	--	-
....KIRCHNERIELLA	--	-	--	-	--	-	--	-	--	-
....OOCYSTIS	*	0	--	-	--	-	--	-	--	-
....SELENASTRUM	--	-	--	-	--	-	--	-	--	-
....TETRAEDRON	*	0	--	-	--	-	--	-	--	-
....TREUBARIA	--	-	--	-	--	-	--	-	--	-
....WESTELLA	--	-	--	-	--	-	--	-	--	-
...SCENEDESMACEAE										
....ACTINASTRUM	2300	5	11000	10	--	-	--	-	--	-
....CRUCIGENIA	550	1	--	-	--	-	--	-	--	-
....SCENEDESMUS	23000#	53	20000#	18	180	7	40	9	81	4
....TETRASTRUM	--	-	--	-	--	-	--	-	--	-
..TETRASPORALES										
...COCCOMYXACEAE										
....ELAKATOTHRIX	--	-	--	-	--	-	--	-	--	-
..VOLVOCALES										
...CHLAMYDOMONADACEAE										
....CARTERIA	--	-	--	-	--	-	--	-	--	-
....CHLAMYDOMONAS	--	-	1300	1	--	-	56	13	--	-
CHRYSOPHYTA										
.BACILLARIOPHYCEAE										
..CENTRALES										
...COSCINODISCACEAE										
....CYCLOTELLA	--	-	57000#	52	280	11	120#	26	500#	23
....MELOSIRA	820	2	--	-	92	4	66	15	360#	16
....STEPHANODISCUS	550	1	--	-	--	-	--	-	--	-
..PENNALES										
...ACHNANTHACEAE										
....ACHNANTHES	--	-	--	-	150	6	--	-	40	2
....COCCONEIS	--	-	--	-	18	1	--	-	--	-
....RHOICOSPHENIA	--	-	--	-	18	1	--	-	--	-
...CYMBELLACEAE										
....AMPHORA	--	-	--	-	--	-	--	-	20	1
....CYMBELLA	--	-	--	-	--	-	--	-	20	1
....EPITHEMIA	--	-	--	-	--	-	5	1	40	2
...DIATOMACEAE										
....DIATOMA	--	-	--	-	55	2	20	5	300	14
...FRAGILARIACEAE										
....ASTERIONELLA	--	-	--	-	--	-	--	-	81	4
....FRAGILARIA	--	-	6600	6	1100#	41	15	3	81	4
....SYNEDRA	--	-	660	1	37	1	5	1	--	-
...GOMPHONEMATACEAE										
....GOMPHONEMA	--	-	--	-	37	1	10	2	40	2
...NAVICULACEAE										
....NAVICULA	--	-	660	1	240	9	10	2	280	13
....PINNULARIA	--	-	--	-	73	3	--	-	--	-
...NITZSCHIACEAE										
....DENTICULA	--	-	--	-	110	4	--	-	--	-
....NITZSCHIA	680	2	1300	1	220	8	10	2	120	5
...SURIRELLACEAE										
....SURIRELLA	--	-	--	-	37	1	--	-	20	1
CRYPTOPHYTA (CRYPTOMONADS)										
.CRYPTOPHYCEAE										
..CRYPTOMONADALES										
...CRYPTOMONADACEAE										
....CRYPTOMONAS	--	-	660	1	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

06792499 LOUP RIVER POWER CANAL AT DIVERSION NEAR GENOA, NE--Continued

PHYTOPLANKTON ANALYSES, JULY 1978 TO AUGUST 1979

DATE TIME	AUG 3,78 1230		SEP 25,78 1530		NOV 30,78 1130		JAN 17,79 0905		MAR 13,79 1630	
ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CYANOPHYTA (BLUE-GREEN ALGAE)										
.CYANOPHYCEAE										
..CHROOCOCCALES										
...CHROOCOCCACEAE										
....AGMENELLUM	--	-	--	-	--	-	--	-	--	-
....ANACYSTIS	2200	5	--	-	--	-	10	2	--	-
..HORMOGONALES										
...NOSTOCACEAE										
....ANABAENA	--	-	--	-	--	-	--	-	100	5
....ANABAENOPSIS	--	-	--	-	--	-	--	-	--	-
...OSCILLATORIACEAE										
....LYNGBYA	--	-	4600	8	--	-	--	-	--	-
....OSCILLATORIA	2500	6	--	-	--	-	76#	17	--	-
EUGLENOPHYTA (EUGLENOIDS)										
.EUGLENOPHYCEAE										
..EUGLENALES										
...EUGLENACEAE										
....EUGLENA	--	-	--	-	--	-	--	-	20	1
....TRACHELOMONAS	--	-	--	-	--	-	--	-	40	2

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

06792499 LOUP RIVER POWER CANAL AT DIVERSION NEAR GENOA, NE--Continued

PHYTOPLANKTON ANALYSES, JULY 1978 TO AUGUST 1979

DATE	MAY 8,79		JUN 13,79		JUL 6,79		AUG 1,79	
TIME	1600		1330		1630		1635	
TOTAL CELLS/ML	37000		170000		75000		93000	
DIVERSITY: DIVISION	1.0		1.1		1.3		0.9	
.CLASS	1.0		1.1		1.3		0.9	
..ORDER	1.5		1.6		1.7		1.1	
...FAMILY	2.0		2.8		2.7		2.4	
....GENUS	2.3		3.7		3.2		3.3	
ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)								
.CHLOROPHYCEAE								
..CHLOROCOCCALES								
...OOCYSTACEAE								
....GLOEOACTINIUM	--	-	--	-	--	-	10000	11
...CHARACIACEAE								
....SCHROEDERIA	--	-	--	-	--	-	--	-
...COELASTRACEAE								
....COELASTRUM	--	-	19000	11	--	-	5600	6
...HYDRODICTYACEAE								
....PEDIASTRUM	--	-	2400	1	4300	6	2800	3
...MICRACTINIACEAE								
....GOLENKINIA	--	-	*	0	810	1	*	0
....MICRACTINIUM	700	2	--	-	--	-	1400	1
...OOCYSTACEAE								
....ANKISTRODESMUS	870	2	6300	4	7800	10	11000	12
....CHODATELLA	--	-	--	-	540	1	700	1
....DICTYOSPHAERIUM	2400	7	20000	12	2200	3	5200	6
....KIRCHNERIELLA	1200	3	1800	1	--	-	1400	1
....OOCYSTIS	--	-	--	-	--	-	*	0
....SELENASTRUM	--	-	--	-	*	0	1400	1
....TETRAEDRON	--	-	*	0	--	-	--	-
....TREUBARIA	--	-	--	-	*	0	--	-
....WESTELLA	--	-	--	-	2200	3	--	-
...SCENEDESMACEAE								
....ACTINASTRUM	1200	3	15000	9	1100	1	2800	3
....CRUCIGENIA	--	-	11000	6	--	-	--	-
....SCENEDESMUS	9700#	26	37000#	22	29000#	38	28000#	30
....TETRASTRUM	--	-	--	-	1100	1	1400	1
..TETRASPORALES								
...COCCOMYXACEAE								
....ELAKATOTHRIX	--	-	--	-	540	1	--	-
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
....CARTERIA	*	0	--	-	--	-	--	-
....CHLAMYDOMONAS	--	-	9000	5	540	1	--	-
CHRYSOPHYTA								
.BACILLARIOPHYCEAE								
..CENTRALES								
...COSCINODISCACEAE								
....CYCLOTELLA	16000#	43	14000	8	3200	4	6600	7
....MELOSIRA	--	-	5700	3	--	-	--	-
....STEPHANODISCUS	--	-	--	-	--	-	--	-
..PENNALES								
...ACHNANTHACEAE								
....ACHNANTHES	--	-	*	0	--	-	--	-
....COCCONEIS	--	-	*	0	--	-	--	-
....RHOICOSPHENIA	--	-	--	-	--	-	--	-
...CYMBELLACEAE								
....AMPHORA	--	-	--	-	--	-	--	-
....CYMBELLA	--	-	--	-	--	-	*	0
....EPITHEMIA	--	-	--	-	--	-	--	-
...DIATOMACEAE								
....DIATOMA	--	-	*	0	--	-	--	-
...FRAGILARIACEAE								
....ASTERIONELLA	--	-	--	-	--	-	--	-
....FRAGILARIA	--	-	9900	6	4600	6	--	-
....SYNEDRA	--	-	1500	1	*	0	--	-
...GOMPHONEMATACEAE								
....GOMPHONEMA	--	-	--	-	--	-	--	-
...NAVICULACEAE								
....NAVICULA	*	0	*	0	540	1	*	0
....PINNULARIA	--	-	--	-	--	-	--	-
...NITZSCHIACEAE								
....DENTICULA	--	-	--	-	--	-	--	-
....NITZSCHIA	4900	13	4500	3	3800	5	9400	10
...SURIRELLACEAE								
....SURIRELLA	--	-	--	-	--	-	--	-
CRYPTOPHYTA (CRYPTOMONADS)								
.CRYPTOPHYCEAE								
..CRYPTOMONADALES								
...CRYPTOMONADACEAE								
....CRYPTOMONAS	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

06792499 LOUP RIVER POWER CANAL AT DIVERSION NEAR GENOA, NE--Continued

PHYTOPLANKTON ANALYSES, JULY 1978 TO AUGUST 1979

DATE	MAY 8,79		JUN 13,79		JUL 6,79		AUG 1,79	
TIME	1600		1330		1630		1635	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CYANOPHYTA (BLUE-GREEN ALGAE)								
.CYANOPHYCEAE								
..CHROOCOCCALES								
...CHROOCOCCACEAE								
....AGMENELLUM	--	-	--	-	2200	3	--	-
....ANACYSTIS	--	-	7500	4	1300	2	3500	4
..HORMOGONALES								
...NOSTOCACEAE								
....ANABAENA	--	-	--	-	--	-	--	-
....ANABAENOPSIS	--	-	2400	1	--	-	--	-
...OSCILLATORIACEAE								
....LYNGBYA	--	-	--	-	--	-	--	-
....OSCILLATORIA	--	-	--	-	9800	13	--	-
EUGLENOPHYTA (EUGLENOIDS)								
.EUGLENOPHYCEAE								
..EUGLENALES								
...EUGLENACEAE								
....EUGLENA	--	-	*	0	--	-	--	-
....TRACHELOMONAS	--	-	*	0	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	LENGTH OF EXPO- SURE (DAYS) (00022)	BIOMASS CHLORO- PHYLL RATIO PERI- PHYTON (UNITS) (70950)	CHLOR-A PERI- PHYTON CHROMO- GRAPHIC FLUOROM (MG/M2) (70957)	CHLOR-B PERI- PHYTON CHROMO- GRAPHIC FLUOROM (MG/M2) (70958)	PERI- PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M (00573)	PERI- PHYTON BIOMASS ASH WEIGHT G/SQ M (00572)
APR						
25...	30	364	.440	.000	.320	.160
MAY						
08...	43	400	.200	.000	.390	.310
23...	58	5676	1.48	.000	22.7	14.3

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)
AUG					
15...	0830	323	8.4	17.0	9.2
15...	1030	298	8.3	16.5	9.4
15...	1230	305	8.5	17.5	9.8
15...	1430	295	8.7	18.0	9.9
15...	1630	301	8.8	19.0	9.8
15...	1830	293	8.8	19.0	9.8
15...	2030	305	8.5	18.0	9.1
AUG					
15...	2230	315	8.8	17.0	8.6
16...	0030	310	8.8	16.5	8.5
16...	0230	312	8.7	16.5	8.5
16...	0430	305	8.7	16.5	8.5
16...	0630	308	8.8	16.0	8.6
16...	0830	308	8.8	16.0	8.7

06792499 LOUP RIVER POWER CANAL AT DIVERSION NEAR GENOA, NE--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	277	252	274	295	275	280	295	291	281	243	290	278
2	262	251	290	312	284	255	292	292	267	249	288	293
3	262	252	308	318	282	257	295	286	265	278	285	299
4	258	250	298	318	272	258	293	299	268	256	285	300
5	258	249	318	317	268	250	300	301	270	257	306	301
6	257	252	320	314	262	252	295	298	273	286	307	262
7	255	249	347	308	264	256	295	297	275	273	315	300
8	258	247	345	303	267	258	295	299	274	273	319	292
9	257	248	320	306	263	262	297	284	265	278	330	300
10	259	251	325	296	264	260	295	279	262	270	330	297
11	259	249	325	284	268	258	295	294	261	272	328	281
12	257	245	315	283	259	247	296	308	264	279	308	272
13	257	241	298	279	255	224	313	300	262	292	317	279
14	257	248	285	283	253	232	305	302	268	296	316	276
15	258	245	285	284	254	230	310	301	270	280	316	274
16	255	243	280	284	267	232	297	297	273	300	312	268
17	253	241	278	283	263	227	296	295	288	311	307	258
18	252	242	272	279	266	244	297	288	273	321	305	258
19	252	254	263	275	277	249	299	275	274	307	292	261
20	250	263	263	271	268	260	295	302	278	302	285	266
21	249	289	263	268	270	265	317	302	272	306	268	267
22	240	292	265	265	267	278	302	299	269	307	270	264
23	247	291	265	276	261	299	304	301	264	318	265	268
24	245	279	270	278	262	299	304	299	279	301	265	268
25	247	243	270	273	259	298	309	298	279	291	267	262
26	249	289	269	272	259	296	308	298	274	295	265	264
27	250	244	280	269	256	292	302	298	255	286	270	262
28	249	256	273	272	256	295	300	304	244	303	267	261
29	252	242	277	271	---	299	302	300	259	297	270	260
30	258	255	282	288	---	295	302	294	265	284	279	256
31	250	---	288	275	---	295	---	296	---	285	270	---

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.5	12.0	.5	.0	.0	.0	5.5	14.0	21.0	24.5	21.0	29.5
2	18.5	14.5	.0	.0	.0	.0	6.5	13.0	24.5	26.0	24.0	30.0
3	17.0	14.5	.0	.0	.0	.0	6.0	13.0	25.5	30.5	24.5	29.5
4	15.0	10.5	.0	.0	.0	.0	10.0	16.5	26.5	24.0	24.5	29.0
5	14.5	10.5	.0	.0	.0	.0	8.5	19.0	27.0	20.0	31.5	30.0
6	14.5	11.0	.0	.0	.0	.0	4.5	19.0	27.0	18.5	31.0	28.5
7	15.5	12.0	.0	.0	.0	.0	8.5	20.0	23.5	20.5	32.0	26.5
8	15.5	11.0	.0	.0	.0	.0	9.5	15.5	18.0	24.5	32.0	26.5
9	18.5	11.5	.0	.0	.0	.0	11.5	10.5	15.5	28.0	29.5	24.5
10	18.5	7.0	.0	.0	.0	.0	7.0	6.5	19.5	31.0	25.5	25.0
11	17.0	3.5	.0	.0	.0	.0	6.5	14.0	24.5	30.5	20.5	21.5
12	14.0	3.5	.0	.0	.0	.5	6.5	17.0	27.0	32.0	24.0	19.0
13	13.0	6.0	.0	.0	.0	1.5	11.0	19.5	29.0	32.0	21.0	21.0
14	14.0	4.5	.5	.0	.0	1.5	15.0	19.5	29.0	31.0	21.0	20.5
15	9.5	4.0	.5	.0	.0	1.0	17.0	20.0	28.0	29.0	19.0	22.0
16	13.0	3.5	.0	.0	.0	.5	18.5	22.0	28.5	26.5	19.5	22.0
17	12.0	5.5	.0	.0	.0	1.5	17.0	21.5	19.5	28.0	29.0	23.0
18	13.0	4.0	.0	.0	.0	1.5	19.0	18.5	17.0	28.5	24.0	23.0
19	12.0	.0	.0	.0	.0	3.0	18.0	17.0	25.0	28.0	24.0	22.0
20	16.0	.0	.0	.0	.0	5.5	17.0	19.5	18.5	30.0	28.5	22.0
21	15.5	.0	.0	.0	.0	5.0	18.5	20.5	20.5	29.0	28.0	21.0
22	10.5	.0	.0	.0	.0	4.0	19.5	22.0	23.5	30.5	26.5	18.5
23	9.5	.0	.0	.0	.0	3.0	20.5	20.0	21.0	29.0	26.0	23.0
24	12.0	.0	.0	.0	.0	5.0	19.0	21.0	24.0	28.5	25.0	18.5
25	10.5	.0	.0	.0	.0	5.0	15.0	22.0	21.0	30.0	24.5	23.0
26	10.5	.0	.0	.0	.0	8.5	15.5	22.0	22.0	31.0	26.0	22.0
27	11.5	.0	.0	.0	.0	7.0	14.0	24.5	24.0	31.5	24.5	23.5
28	11.5	.0	.0	.0	.0	12.0	12.0	25.5	21.0	28.0	24.0	23.5
29	14.0	.5	.0	.0	---	10.0	14.5	26.0	24.0	25.0	28.0	23.5
30	13.5	.0	.0	.0	---	9.0	11.0	19.5	25.0	25.0	29.5	24.0
31	11.0	---	.0	.0	---	7.0	---	15.5	---	24.0	24.5	---

06792500 LOUP RIVER POWER CANAL NEAR GENOA, NE

LOCATION.--Lat 41°25'03", long 97°47'37", in NE1/4NE1/4 sec.32, T.17 N., R.4 W., Nance County, Hydrologic Unit 10210009, at skimming weir on downstream end of settling basin on left bank, 2 mi (3 km) downstream from point of diversion and 3.5 mi (5.6 km) southwest of Genoa.

PERIOD OF RECORD.--December 1936 to current year.

GAGE.--Water-stage recorder and concrete weir. Datum of gage is 1,566.26 ft (477.396 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1956, at datum 3.0 feet higher.

REMARKS.--Records excellent. Canal diverts from Loup River in sec.6, T.16 N., R.4 W.; water is used in powerplants near Monroe and Columbus and is returned to Platte River 1.5 mi (2.4 km) downstream from Loup River. Diversion began Dec. 2, 1936.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 3,410 ft³/s (96.6 m³/s) Apr. 27, 1944; no flow Aug. 16, 24-27, 30, 31, 1966, flood damage to canal being repaired.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 3,080 ft³/s (87.2 m³/s) May 12; minimum daily, 7.1 ft³/s (0.20 m³/s) Dec. 6, 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1350	2180	392	465	1780	2020	2970	2140	2780	2820	1500	1230
2	1350	2120	24	310	1750	1970	3000	2310	2630	2290	1410	1060
3	1410	2130	14	63	1800	1820	3050	2980	2250	2350	1440	1030
4	1450	2060	16	84	1910	1860	3000	2430	2100	2010	1260	922
5	1450	2080	12	402	1950	2040	2800	2120	2010	2250	1050	875
6	1480	2340	7.1	868	1790	1980	2860	2020	1960	2780	888	1100
7	1500	2270	7.1	857	1740	1930	2670	1930	1850	2720	760	923
8	1500	2270	8.1	988	1730	1880	2430	1970	1800	2450	660	885
9	1490	2080	13	1310	1800	1900	2500	2500	2080	2310	570	973
10	1490	2070	17	1430	1830	1880	2290	2990	2430	2200	585	1180
11	1480	2330	306	1480	1800	1830	2860	2980	2380	1970	620	1150
12	1520	2630	831	1510	1870	1850	3060	3080	2250	1800	730	1530
13	1550	2310	1050	809	1950	1800	2970	2750	2070	1730	705	1540
14	1560	2220	832	163	1960	1860	2710	2440	1890	1470	705	1600
15	1700	2290	1120	892	1950	1710	2510	2380	1760	1560	770	1930
16	1840	2200	1220	1410	1930	1750	2350	2280	1630	1460	878	2150
17	1870	2210	1000	1450	1790	1780	2370	2110	1580	1380	942	1960
18	1880	2150	1330	1490	1730	1630	2370	2230	1660	1400	920	1860
19	2020	673	1330	1500	1770	1670	2340	2770	1690	1430	1040	1780
20	1990	75	1060	1430	1960	1630	2720	2380	1770	1490	1490	1710
21	1970	53	1250	1530	1800	1720	2740	2570	1810	1340	1650	1710
22	2110	68	1170	1450	1900	2280	2560	2210	1710	1150	1660	1700
23	2340	49	1270	1470	1990	2350	2280	2190	1770	1020	1540	1700
24	2730	22	1010	1630	2050	2790	2180	2170	1760	1040	1450	1720
25	2170	23	1220	1920	1910	3010	2250	2030	2020	1490	1410	1800
26	2310	64	1250	1910	2020	3010	2690	1970	1870	1320	1500	1710
27	2170	69	1210	1890	2040	3010	2860	1940	1940	1420	1790	1700
28	2200	42	1300	1900	2050	2970	2440	1970	2470	1440	1640	1700
29	2120	236	1070	1890	---	3010	2500	1820	2580	1530	1530	1700
30	2050	174	885	1950	---	2970	2160	1900	2940	1540	1510	1730
31	2090	---	810	1970	---	2950	---	2190	---	1490	1360	---
TOTAL	56140	41488	23034.3	38421	52550	66860	78490	71750	61440	54610	35983	44550
MEAN	1811	1383	743	1239	1877	2157	2616	2315	2048	1762	1161	1485
MAX	2730	2630	1330	1970	2050	3010	3060	3080	2940	2820	1790	2150
MIN	1350	22	7.1	63	1730	1630	2160	1820	1580	1020	570	875
AC-FT	111400	82290	45690	76210	104200	132600	155700	142300	121900	108300	71370	88380

CAL YR 1978 TOTAL 607543.3 MEAN 1665 MAX 3110 MIN 7.1 AC-FT 1205000
WTR YR 1979 TOTAL 625324.3 MEAN 1713 MAX 3080 MIN 7.1 AC-FT 1240000

06793000 LOUP RIVER NEAR GENOA, NE
(National stream-quality accounting network station)

LOCATION.--Lat 41°25'05", long 97°43'25", in SW1/4NE1/4 sec.25, T.17 N., R.4 W., Nance County, Hydrologic Unit 10210009, on right bank 12 ft (4 m) downstream from bridge on State Highway 39, 2 mi (3 km) south of Genoa, 3 mi (5 km) upstream from Beaver Creek, and 6 mi (10 km) downstream from diversion dam of Loup River Public Power District.

DRAINAGE AREA.--14,400 mi² (37,300 km²), approximately, of which about 5,650 mi² (14,600 km²) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1928 to June 1932, October 1943 to current year (October 1953 to April 1955, monthly discharge only).

REVISED RECORDS.--WDR NE-74: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,548.13 ft (469.432 m) National Geodetic Vertical Datum of 1929. Aug. 17, 1928, to June 30, 1932, nonrecording gage at present site at datum 1.49 ft (0.454 m) higher. Oct. 1, 1943 to Sept. 16, 1974 (Apr. 24 to Dec. 22, 1949, wire-weight gage only) at present site and datum. Sept. 17, 1974 to Nov. 21, 1977 at site 300 ft (90 m) upstream at present datum.

REMARKS.--Records fair except those for winter period, which are poor. Natural flow of stream affected by power developments, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas. Records do not include flow of Loup River power canal (station 06792500) which diverts at point 6 mi (10 km) upstream and returns to Platte River below mouth of Loup River; diversion began Dec. 2, 1936.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 129,000 ft³/s (3,650 m³/s) Aug. 13, 1966, gage height, 13.93 ft (4.246 m), from rating curve extended above 42,000 ft³/s (1,190 m³/s) on basis of indirect measurement of peak flow; no flow at times during 1956, 1959, 1961, 1963, 1970, 1973, 1974, 1975.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 12,300 ft³/s (348 m³/s) Mar. 22, gage height, 8.20 ft (2.499 m), maximum gage height, 10.87 ft (3.313 m), Mar. 15, backwater from ice; minimum daily discharge, 2.8 ft³/s (0.079 m³/s) Nov. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	4.1	1850	2150	54	560	460	42	14	124	12	18
2	11	3.8	2000	1950	40	700	1110	59	48	65	12	17
3	11	3.6	450	1800	38	1300	493	80	20	65	11	16
4	11	3.5	300	1500	40	1800	382	45	19	38	12	16
5	11	2.9	500	1000	46	2500	186	35	19	47	11	15
6	9.9	2.8	780	380	80	3700	220	32	18	129	11	16
7	9.9	2.9	880	150	170	3000	161	30	18	194	11	14
8	9.6	4.3	840	70	160	2800	116	30	20	36	11	14
9	9.4	14	820	40	135	4000	119	36	25	19	11	14
10	8.5	7.2	820	20	120	4400	118	1380	23	16	11	14
11	7.6	5.5	800	50	130	5400	289	1090	22	18	11	13
12	6.4	5.8	800	60	135	6400	1080	218	21	18	11	15
13	6.1	11	820	100	145	6300	1300	65	21	19	11	14
14	6.0	14	840	1000	150	6200	882	31	20	16	13	14
15	5.9	16	840	500	120	7800	374	24	20	22	14	14
16	5.8	16	860	70	100	9000	165	22	21	16	14	15
17	5.9	19	880	62	90	9600	156	20	22	14	15	15
18	5.8	9.9	900	52	88	8000	130	20	22	15	15	14
19	5.7	150	920	44	92	7000	95	50	22	14	15	14
20	5.8	900	1000	70	100	5240	569	30	20	14	18	15
21	5.6	820	1100	45	54	3360	1550	18	19	14	18	14
22	7.0	500	1200	40	56	9930	403	16	19	13	18	14
23	6.9	540	1250	58	58	8910	187	15	23	12	17	13
24	7.8	700	1300	52	60	3810	66	15	22	13	16	13
25	5.9	1400	1400	48	200	2000	57	14	21	13	17	12
26	6.0	2100	1500	44	300	1230	52	14	21	44	18	13
27	5.6	2000	1550	47	400	1170	50	14	34	13	19	14
28	4.8	1900	1700	60	1000	930	45	14	67	13	20	14
29	4.2	1800	1800	70	---	735	43	14	69	13	19	15
30	4.2	1750	1900	50	---	1000	40	16	200	12	19	15
31	3.8	---	2000	60	---	940	---	14	---	11	18	---
TOTAL	226.1	14706.3	34600	11642	4161	129715	11100	3503	930	1063	449	434
MEAN	7.29	490	1116	376	149	4184	370	113	31.0	34.3	14.5	14.5
MAX	12	2100	2000	2150	1000	9930	1550	1380	200	194	20	18
MIN	3.8	2.8	300	20	38	560	40	14	14	11	11	12
AC-FT	448	29170	68630	23090	8250	257300	22020	6950	1840	2110	891	861

CAL YR 1978 TOTAL 276418.6 MEAN 757 MAX 30000 MIN 2.8 AC-FT 548300
WTR YR 1979 TOTAL 212529.4 MEAN 582 MAX 9930 MIN 2.8 AC-FT 421600

06793000 LOUP RIVER NEAR GENOA, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976, 1979.

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	TURBIDITY (JTU) (00070)	TURBIDITY (NTU) (00076)	OXYGEN, DISSOLVED (MG/L) (00300)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)
MAR												
15...	1130	7940	225	7.4	.0	50	40	--	K150	10000	97	0
21...	1415	2000	250	7.7	6.0	480	750	11.7	230	29000	110	0
28...	1050	675	299	7.7	8.5	50	60	8.5	<100	K19000	130	0

K Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	ALKALINITY (MG/L AS CACO3) (00410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)
MAR												
15...	30	5.4	8.2	.4	10	91	13	3.8	.2	28	165	154
21...	33	5.9	9.4	.4	7.8	110	12	2.9	.3	38	181	176
28...	39	6.9	11	.4	8.8	130	15	3.5	.3	41	206	204

DATE	SOLIDS, DISSOLVED (TONS PER AC-FT) (70303)	SOLIDS, DISSOLVED (TONS PER DAY) (70302)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITROGEN, NH4 + ORG. SUSP. TOTAL (MG/L AS N) (00624)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, DISSOLVED (MG/L AS P) (00666)
MAR											
15...	.22	3540	.57	.32	.78	1.1	.00	1.1	1.7	.45	.27
21...	.25	977	.62	.18	1.4	1.6	1.1	.52	2.2	.28	.21
28...	.28	375	.78	.17	1.1	1.3	.30	1.0	2.1	.39	.27

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA) (01007)	BARIUM, SUSPENDED RECOVERABLE (UG/L AS BA) (01006)	BARIUM, DISSOLVED (UG/L AS BA) (01005)	CADMIUM SUSPENDED RECOVERABLE (UG/L AS CD) (01026)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) (01034)	CHROMIUM, SUSPENDED RECOV. (UG/L AS CR) (01031)
MAR										
15...	1130	5	4	200	100	100	11	0	10	10
21...	1415	8	8	200	200	0	--	--	10	10
28...	1050	8	7	200	100	100	--	--	10	10

DATE	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COBALT, TOTAL RECOVERABLE (UG/L AS CO) (01037)	COBALT, SUSPENDED RECOVERABLE (UG/L AS CO) (01036)	COBALT, DISSOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOVERABLE (UG/L AS CU) (01042)	COPPER, SUSPENDED RECOVERABLE (UG/L AS CU) (01041)	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOVERABLE (UG/L AS FE) (01045)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE) (01044)	IRON, DISSOLVED (UG/L AS FE) (01046)
MAR										
15...	0	0	0	0	9	5	4	2100	2000	130
21...	0	0	0	0	11	7	4	600	570	30
28...	0	1	1	0	8	5	3	3200	3200	40

DATE	LEAD, DISSOLVED (UG/L AS PB) (01049)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) (01055)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN) (01054)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	MERCURY SUSPENDED RECOVERABLE (UG/L AS HG) (71895)	MERCURY DISSOLVED (UG/L AS HG) (71890)	SELENIUM, TOTAL (UG/L AS SE) (01147)	SELENIUM, SUSPENDED TOTAL (UG/L AS SE) (01146)
MAR									
15...	0	60	40	20	.2	.2	.0	1	0
21...	--	230	230	0	.1	.0	.1	2	1
28...	--	120	120	0	.0	.0	.0	1	0

DATE	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOVERABLE (UG/L AS AG) (01077)	SILVER, SUSPENDED RECOVERABLE (UG/L AS AG) (01076)	SILVER, DISSOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	ZINC, SUSPENDED RECOVERABLE (UG/L AS ZN) (01091)	ZINC, DISSOLVED (UG/L AS ZN) (01090)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C) (00689)
MAR									
15...	1	0	0	0	20	10	10	--	--
21...	1	0	0	0	40	30	10	5.4	>4.0
28...	1	0	0	0	50	40	10	14	2.0

06793000 LOUP RIVER NEAR GENOA, NE--Continued

PHYTOPLANKTON ANALYSES, JULY 1978 TO MARCH 1979

DATE	MAR 15,79	MAR 21,79	MAR 28,79
TIME	1130	1415	1050
TOTAL CELLS/ML	2200	23000	8500
DIVERSITY: DIVISION	1.3	0.8	1.1
.CLASS	1.3	0.8	1.1
..ORDER	2.1	1.7	1.6
...FAMILY	2.6	2.6	3.1
....GENUS	0.0	2.8	3.3

ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)						
.CHLOROPHYCEAE						
..CHLOROCOCCALES						
...OOCYSTACEAE						
....ANKISTRODESMUS	230	11	--	-	--	-
....CHLORELLA	14	1	--	-	--	-
....OOCYSTIS	--	-	320	1	--	-
...SCENEDESMACEAE						
....SCENEDESMUS	300	14	160	1	410	5
..VOLVOCALES						
...CHLAMYDOMONADACEAE	87	4	--	-	--	-
...VOLVOCACEAE						
....PANDORINA	--	-	2600	11	--	-
..ZYGNEMATALES						
...DESMIDIACEAE						
....COSMARIUM	--	-	*	0	--	-
....STAURASTRUM	14	1	--	-	--	-
CHRYSOPHYTA						
.BACILLARIOPHYCEAE						
..CENTRALES						
...COSCINODISCACEAE						
....CYCLOTELLA	58	3	11000#	50	750	9
....MELOSIRA	58	3	480	2	450	5
..PENNALES						
...ACHNANTHACEAE						
....COCCONEIS	--	-	650	3	720	8
...CYMBELLACEAE						
....AMPHORA	--	-	*	0	--	-
....CYMBELLA	--	-	650	3	75	1
....EPITHEMIA	--	-	*	0	*	0
...DIATOMACEAE						
....DIATOMA	--	-	890	4	720	8
...FRAGILARIACEAE						
....ASTERIONELLA	--	-	--	-	75	1
....FRAGILARIA	120	5	1700	7	1800#	22
...GOMPHONEMATACEAE						
....GOMPHONEMA	--	-	320	1	260	3
...MERIDIONACEAE						
....MERIDION	--	-	*	0	--	-
...NAVICULACEAE						
....NAVICULA	--	-	1300	6	680	8
...NITZSCHIACEAE						
....NITZSCHIA	14	1	730	3	380	4
...SURIRELLACEAE						
....CYMATOPLEURA	--	-	--	-	75	1
....SURIRELLA	--	-	480	2	110	1
CYANOPHYTA (BLUE-GREEN ALGAE)						
.CYANOPHYCEAE						
..HORMOGONALES						
...OSCILLATORIACEAE						
....PHORMIDIUM	100	5	--	-	--	-
..CHROOCOCCALES						
...CHROOCOCCACEAE						
....AGMENELLUM	230	11	--	-	--	-
..HORMOGONALES						
...NOSTOCACEAE						
....ANABAENA	120	5	320	1	1800#	21
...OSCILLATORIACEAE						
....LYNGBYA	350#	16	--	-	--	-
....OSCILLATORIA	490#	23	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)						
.EUGLENOPHYCEAE						
..EUGLENALES						
...EUGLENACEAE						
....EUGLENA	--	-	*	0	--	-
....TRACHELOMONAS	--	-	480	2	75	1
PYRRHOPHYTA (FIRE ALGAE)						
.DINOPHYCEAE						
..PERIDINIALES						
...GLENODINIACEAE						
....GLENODINIUM	--	-	--	-	*	0

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

06793000 LOUP RIVER NEAR GENOA, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)
MAR							
15...	1100	7940	.0	219	4700	--	--
21...	1415	2000	6.0	2200	11900	8	11
28...	0930	675	8.5	689	1180	--	--
MAY							
09...	1020	35	12.0	30	2.8	--	--
JUN							
12...	1420	20	28.0	113	6.1	--	--
JUL							
06...	1335	90	19.0	3520	855	36	44
AUG							
03...	1035	12	27.5	77	2.5	--	--
SEP							
26...	1100	14	18.0	102	3.9	--	--

DATE	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70344)	SED. SUSP. FALL DIAM. % FINER THAN .500 MM (70345)	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM (70346)
MAR						
15...	--	29	--	--	--	--
21...	12	26	56	90	99	100
28...	--	63	65	84	85	100
MAY						
09...	--	65	--	--	--	--
JUN						
12...	--	89	--	--	--	--
JUL						
06...	71	97	98	99	100	--
AUG						
03...	--	--	--	--	--	--
SEP						
26...	--	26	--	--	--	--

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	NUMBER OF SAM-PLING POINTS (00063)	BED MAT. FALL DIAM. % FINER THAN .062 MM (80158)	BED MAT. FALL DIAM. % FINER THAN .125 MM (80159)	BED MAT. FALL DIAM. % FINER THAN .250 MM (80160)	BED MAT. FALL DIAM. % FINER THAN .500 MM (80161)	BED MAT. FALL DIAM. % FINER THAN 1.00 MM (80162)	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM (80171)
MAR											
15...	1100	7940	3	--	0	19	76	96	97	99	100
21...	1415	2000	4	0	22	52	95	99	99	100	--
28...	0930	675	5	0	11	53	94	99	100	--	--
MAY											
09...	1020	35	4	0	1	28	92	97	100	--	--
JUN											
12...	1420	20	4	0	1	50	95	100	--	--	--
JUL											
06...	1335	90	5	0	3	36	90	99	99	100	--
AUG											
03...	1035	12	13	--	0	40	96	99	99	100	--
SEP											
26...	1100	14	4	--	0	35	92	99	100	--	--

06794000 BEAVER CREEK AT GENOA, NE

LOCATION.--Lat 41°26'32", long 97°44'11", in NE1/4SE1/4 sec.14, T.17 N., R.4 W., Nance County, Hydrologic Unit 10210009, on left bank in city park at southwest corner at Genoa, 0.2 mi (0.3 km) downstream from Union Pacific Railroad bridge, 0.2 mi (0.3 km) upstream from bridge on State Highway 39, and 2.5 mi (4.0 km) upstream from mouth.

DRAINAGE AREA.--647 mi² (1,676 km²), of which about 410 mi² (1,062 km²) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1940 to current year.

REVISED RECORDS.--WSP 1310: 1942(M). WDR NE-73: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,542.13 ft (470.041 m) National Geodetic Vertical Datum of 1929. October 1940 to Nov. 5, 1942, nonrecording gage and Nov. 6, 1942, to Nov. 1, 1955, water-stage recorder, at site 0.4 mi (0.6 km) upstream at datum 4.62 ft (1.408 m) higher.

REMARKS.--Records good except those for winter period, which are poor. Natural flow affected slightly by ground-water and surface-water withdrawals for irrigation.

AVERAGE DISCHARGE.--39 years, 123 ft³/s (3.483 m³/s), 89,110 acre-ft/yr (0.110 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21,200 ft³/s (600 m³/s) July 19, 1950, gage height, 18.70 ft (5.700 m), site and datum then in use, from rating curve extended above 8,500 ft³/s (241 m³/s); minimum daily, 0.41 ft³/s (0.012 m³/s) July 25, 1974.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1000 ft³/s (28.3 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Mar. 13	1430	ice jam		*9.69	2.954	Mar. 22	2115	1200	34.0	7.52	2.292
Mar. 14	----	1200	34.0	ice jam		May 10	2400	*1540	43.6	8.47	2.582

Minimum daily discharge, 23 ft³/s (0.65 m³/s) Aug. 9-11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	47	66	62	58	48	62	159	148	113	86	63	36
2	47	66	58	54	49	62	154	160	115	84	56	38
3	48	67	52	52	49	60	152	308	111	82	47	41
4	47	67	60	52	50	54	151	346	106	85	40	42
5	47	66	68	52	54	64	149	310	101	85	38	43
6	49	67	70	52	58	68	139	253	97	93	32	44
7	51	66	72	50	60	72	133	193	94	93	29	45
8	52	66	60	48	58	90	129	167	92	94	24	46
9	53	68	56	50	56	140	121	182	101	93	23	47
10	54	67	64	50	54	240	119	1070	103	91	23	48
11	53	68	72	52	56	380	138	828	106	88	23	49
12	52	69	76	50	58	600	147	467	109	82	57	50
13	53	70	76	49	60	850	234	353	101	79	47	49
14	54	71	76	47	62	980	304	262	95	73	37	51
15	56	73	74	48	58	869	266	226	91	102	40	54
16	56	72	72	49	56	534	198	199	88	75	42	51
17	56	72	70	49	58	283	170	179	86	70	45	51
18	56	72	70	50	60	353	154	178	87	63	40	49
19	57	71	70	52	62	371	147	205	92	62	44	51
20	57	70	72	52	64	294	565	239	91	58	50	48
21	57	66	72	54	62	271	288	224	89	55	55	46
22	61	68	70	54	60	753	214	181	90	51	60	46
23	62	70	68	54	60	709	191	157	90	47	65	46
24	62	74	66	54	58	509	167	142	93	57	60	47
25	67	64	68	54	58	443	154	132	127	63	55	47
26	66	60	70	52	58	352	147	126	103	56	50	47
27	64	56	74	52	60	264	158	121	129	49	45	45
28	66	52	76	50	60	221	159	117	121	47	46	46
29	64	66	72	49	---	201	155	114	96	46	44	45
30	64	64	68	48	---	181	149	114	89	45	40	44
31	64	---	62	48	---	164	---	114	---	49	37	---
TOTAL	1742	2014	2116	1585	1606	10494	5511	7815	3006	2203	1357	1392
MEAN	56.2	67.1	68.3	51.1	57.4	339	184	252	100	71.1	43.8	46.4
MAX	67	74	76	58	64	980	565	1070	129	102	65	54
MIN	47	52	52	47	48	54	119	114	86	45	23	36
AC-FT	3460	3990	4200	3140	3190	20810	10930	15500	5960	4370	2690	2760

CAL YR 1978 TOTAL 44812 MEAN 123 MAX 2340 MIN 27 AC-FT 88880
WTR YR 1979 TOTAL 40841 MEAN 112 MAX 1070 MIN 23 AC-FT 81010

06794000 BEAVER CREEK AT GENOA, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--October 1978 to September 1979.

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (JTU) (00070)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT										
25...	1230	59	330	7.9	8.5	35	10.8	2.4	700	7500
NOV										
30...	1430	124	330	7.4	1.5	15	--	--	K140	600
DEC										
20...	1130	72	325	8.2	.0	25	11.4	1.7	470	720
JAN										
17...	1100	51	345	7.2	.5	10	10.7	3.4	K2700	1200
FEB										
13...	1515	58	322	7.3	.0	12	8.2	1.4	4500	480
MAR										
13...	1620	916	185	7.4	2.0	--	8.0	>11	K35000	K32000
28...	1310	218	308	7.9	9.5	170	10.1	--	K700	31000
APR										
10...	1545	118	360	7.9	8.0	50	8.4	3.8	K870	8500
MAY										
09...	1215	172	314	7.6	9.5	--	7.6	3.2	3000	4300
JUN										
13...	1530	101	363	8.2	28.0	45	8.7	2.8	1400	1020
JUL										
06...	1435	97	359	7.7	19.0	--	--	2.7	K11000	2900
AUG										
01...	1810	71	289	7.8	28.0	220	6.9	3.2	K5070	1500
SEP										
25...	1505	47	328	8.2	21.0	45	9.3	3.4	600	1100

K Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)
OCT										
25...	3.6	235	.32	37.4	.42	.04	.66	.70	1.1	.39
NOV										
30...	2.8	220	.30	73.7	.68	.22	.55	.77	1.4	.32
DEC										
20...	3.6	225	.31	44.1	.63	.13	.36	.49	1.1	.35
JAN										
17...	3.3	240	.33	33.2	.76	.30	.18	.48	1.2	.35
FEB										
13...	3.2	--	.29	33.4	.73	.28	.28	.56	1.3	.31
MAR										
13...	2.9	149	.20	369	1.1	.71	4.0	4.7	5.8	.87
28...	--	--	--	--	--	--	--	--	--	--
APR										
10...	4.2	237	.32	75.5	.71	.19	1.0	1.2	1.9	.58
MAY										
09...	3.1	193	.26	89.6	.67	.04	.76	.80	1.5	.84
JUN										
13...	3.4	242	.33	66.0	.58	.07	.65	.72	1.3	.57
JUL										
06...	3.0	230	.31	60.4	.74	.07	.93	1.0	1.7	.67
AUG										
01...	2.9	--	.25	35.1	.80	.02	.45	.47	1.3	.86
SEP										
25...	2.4	225	.31	28.8	.51	.12	.45	.57	1.1	.50

06794000 BEAVER CREEK AT GENOA, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)
NOV										
30...	1430	150	0	47	8.2	11	.4	8.8	160	12
FEB										
13...	1515	140	0	43	7.2	8.4	.3	5.8	150	9.2
MAY										
09...	1215	140	0	43	6.8	9.8	.4	7.2	150	10
AUG										
01...	1810	130	0	40	6.2	6.9	.3	4.1	130	11

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P) (00666)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)
NOV										
30...	.2	43	233	.68	.23	6	200	40	--	0
FEB										
13...	.2	42	210	--	.27	--	--	40	--	--
MAY										
09...	.3	31	205	.65	.32	9	100	50	2	0
AUG										
01...	.3	33	183	--	.51	--	--	70	--	--

DATE	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY SUS-PENDED RECOV-ERABLE (UG/L AS HG) (71895)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
NOV										
30...	2	20	--	40	.0	.0	.0	2	0	20
FEB										
13...	--	30	--	700	--	--	--	--	--	--
MAY										
09...	2	50	0	10	.3	.3	.0	1	0	50
AUG										
01...	--	10	--	1	--	--	--	--	--	--

06795500 SHELL CREEK NEAR COLUMBUS, NE

LOCATION.--Lat 41°31'33", long 97°16'55", in NE1/4NW1/4 sec.23, T.18 N., R.1 E., Platte County, Hydrologic Unit 10200201, on right bank 80 ft (24 m) upstream from county road bridge, 1 mi (2 km) upstream from Loseke Creek, and 7 mi (11 km) northeast of Columbus.

DRAINAGE AREA.--270 mi² (700 km²), approximately.

PERIOD OF RECORD.--August 1947 to September 1975, October 1977 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,435 ft (437.4 m).

REMARKS.--Records good except those for winter period, which are poor.

AVERAGE DISCHARGE.--30 years, 41.7 ft³/s (1.181 m³/s), 30,210 acre-ft/yr (37.2 hm³/yr); median of yearly mean discharges, 34 ft³/s (0.963 m³/s), 24,600 acre-ft/yr (30.3 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,970 ft³/s (169 m³/s) June 3, 1950, gage height, 21.38 ft (6.517 m); minimum daily, 0.4 ft³/s (0.011 m³/s) July 27, 1954.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 2, 1947, reached a stage of 21.7 ft (6.61 m), from floodmark, discharge, 4,600 ft³/s (130 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 734 ft³/s (20.8 m³/s) Mar. 23 at 0800, gage height, 11.64 ft (3.548 m), no other peak above base of 700 ft³/s (19.8 m³/s); maximum gage height, 13.59 ft (4.142 m) Mar. 13, backwater from ice; minimum daily discharge, 1.3 ft³/s (0.037 m³/s) Sept. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.4	7.6	7.8	6.8	12	12	31	21	17	13	8.2	1.3
2	4.9	7.5	7.2	6.4	12	15	29	24	17	13	7.7	2.0
3	4.6	7.5	6.6	6.0	13	13	29	55	17	12	8.1	3.2
4	4.4	7.8	7.6	5.8	13	13	29	61	15	12	7.0	3.2
5	4.4	7.7	7.8	5.6	13	14	27	29	14	12	6.0	3.2
6	4.5	8.5	7.8	5.8	14	16	25	22	13	12	5.7	2.1
7	4.5	7.7	7.4	6.8	13	17	22	20	13	12	5.0	1.6
8	4.8	8.0	7.0	6.8	12	17	22	19	13	12	6.9	45
9	4.9	8.0	6.4	7.2	12	15	22	19	15	13	5.8	11
10	4.9	8.3	6.4	7.8	12	25	21	187	18	12	4.9	4.7
11	5.2	8.2	6.6	8.2	11	56	26	544	20	12	4.2	3.0
12	5.0	8.4	6.8	8.2	11	120	43	122	19	11	3.5	2.6
13	4.7	8.7	7.0	7.6	12	430	45	56	17	11	3.0	3.9
14	5.1	8.7	7.0	7.6	13	590	33	40	15	11	2.6	4.1
15	5.2	9.1	7.0	7.8	12	500	27	34	15	12	5.0	4.1
16	5.2	8.7	6.8	8.2	9.2	452	23	29	14	12	5.3	3.7
17	8.2	8.8	6.6	8.8	10	383	21	26	14	10	6.5	3.2
18	7.5	8.8	6.6	9.4	11	429	20	25	14	8.5	5.1	3.3
19	4.3	8.4	6.4	10	12	512	19	36	14	8.7	4.7	3.6
20	7.2	8.0	6.4	10	12	231	84	36	15	8.0	5.2	3.1
21	4.9	7.6	6.2	10	12	108	270	31	14	8.5	6.2	3.5
22	4.9	7.4	6.0	10	12	220	79	26	14	8.9	8.5	3.4
23	6.1	8.0	6.0	9.8	11	587	41	22	14	8.4	8.5	4.6
24	8.2	9.0	6.2	10	10	164	30	20	15	10	8.4	4.4
25	7.0	9.4	6.0	10	10	78	28	19	17	14	4.7	3.1
26	7.8	9.0	5.6	10	11	62	27	18	21	42	3.8	3.4
27	6.5	8.0	5.8	10	11	52	26	17	29	12	4.1	3.5
28	6.5	8.4	6.2	11	11	46	23	17	33	9.3	4.8	3.6
29	6.9	8.8	6.4	12	---	43	23	16	21	8.2	5.2	3.6
30	7.0	8.4	6.8	12	---	39	22	16	19	8.8	4.5	4.2
31	7.0	---	7.0	12	---	35	---	16	---	7.4	3.2	---
TOTAL	176.7	248.4	207.4	267.6	327.2	5294	1167	1623	506	364.7	172.3	149.2
MEAN	5.70	8.28	6.69	8.63	11.7	171	38.9	52.4	16.9	11.8	5.56	4.97
MAX	8.2	9.4	7.8	12	14	590	270	544	33	42	8.5	45
MIN	4.3	7.4	5.6	5.6	9.2	12	19	16	13	7.4	2.6	1.3
AC-FT	350	493	411	531	649	10500	2310	3220	1000	723	342	296

CAL YR 1978 TOTAL 12570.4 MEAN 34.4 MAX 1200 MIN 4.3 AC-FT 24930
WTR YR 1979 TOTAL 10503.5 MEAN 28.8 MAX 590 MIN 1.3 AC-FT 20830

06796000 PLATTE RIVER AT NORTH BEND, NE

LOCATION.--Lat 41°27'10", long 96°45'50", in SE1/4 sec.7, T.17 N., R.6 E., Dodge County, Hydrologic Unit 10200201, on left bank 80 ft (24 m) upstream from bridge on State Highway 79, 1 mi (2 km) south of North Bend, and 5 mi (8 km) downstream from Shell Creek.

DRAINAGE AREA.--77,100 mi^2 (199,700 km^2), approximately, of which about 63,300 mi^2 (163,900 km^2) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1949 to current year.

REVISED RECORDS.--WDR NE-76-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,262.32 ft (384.755 m) National Geodetic Vertical Datum of 1929. Prior to Sept. 12, 1951, nonrecording gage and Sept. 12, 1951, to Sept. 30, 1970, water-stage recorder, at present site at datum 2.00 ft (0.610 m) higher.

REMARKS.--Records fair except those for winter period, which are poor. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas.

AVERAGE DISCHARGE.--30 years, 4,000 ft^3/s (113.3 m^3/s), 2,898,000 acre-ft/yr (3.57 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 112,000 ft^3/s (3,170 m^3/s) Mar. 29, 1960, gage height, 10.04 ft (3.060 m), present datum; maximum gage height, 15.55 ft (4.740 m) Mar. 19, 1978, ice jam; minimum daily discharge, 36 ft^3/s (1.02 m^3/s) July 29, 1974.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 24,900 ft^3/s (705 m^3/s) Mar. 23, gage height, 7.09 ft (2.161 m); maximum gage height, 10.00 ft (3.048 m) Mar. 14, backwater from ice; minimum daily discharge, 564 ft^3/s (16.0 m^3/s) Aug. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1290	2940	2500	1650	2400	3500	6260	5310	2760	8720	1660	1080
2	1330	3390	2200	1750	2400	3700	8210	5620	3730	8420	2130	1270
3	1370	2840	2000	2100	2400	4300	6440	6410	3010	8040	2220	1130
4	2120	2570	1600	2000	2400	4700	6040	8230	3230	6480	2370	1160
5	1730	1790	1500	1800	2400	5400	5740	6230	2730	7210	2440	888
6	1630	3300	1300	1900	2500	6600	5360	5230	2950	6810	1560	565
7	1630	2470	1250	2100	2400	8000	3910	5020	2560	7610	1040	1140
8	1100	2950	1200	2300	2350	9000	5780	4830	2680	6990	1140	956
9	1550	3110	1200	2500	2250	9200	5450	4980	3000	6360	795	982
10	2050	2730	1300	2800	2400	10000	4680	5950	3730	6090	1090	1010
11	1400	3210	1400	2700	2500	12000	5040	11600	3410	5510	564	1020
12	1370	3220	1500	2700	2600	15000	6630	9940	3390	4350	700	1120
13	1550	3970	1600	2500	2700	20000	7540	7680	3560	4200	914	1320
14	1680	2840	1700	2100	2900	19000	5610	6060	3290	3620	890	1330
15	1540	2700	1800	2000	2800	18000	7000	5230	3230	3650	740	1480
16	1760	2890	1900	2400	2400	17500	5910	4710	2700	3770	968	1530
17	1880	2730	1950	2700	2400	16000	4850	4640	3040	3230	1260	1720
18	1490	2650	1950	2700	2600	15000	5080	4140	2880	2700	982	1420
19	1930	3130	1950	2600	3000	14000	4340	4540	3310	2930	840	1620
20	2160	1750	1950	2400	2900	13200	5700	4580	2640	2660	1320	1390
21	1870	3970	1950	2500	2900	9890	6910	4910	3130	2440	1460	1400
22	2170	3130	1950	2400	3300	12500	7980	4310	3320	2010	1350	1500
23	2350	2730	1950	2350	3100	23200	6120	4200	3750	2230	1470	1360
24	2490	2300	1900	2300	3000	18200	5020	3880	5270	1860	1210	1440
25	3180	2520	2000	2250	2900	14000	4960	4150	5110	2060	1250	1280
26	2310	3510	2000	2250	3000	12200	4960	3750	5760	2700	1240	1420
27	3040	3000	1850	2250	3100	10600	5190	3540	6010	1880	1480	1260
28	2350	3100	1900	2250	3300	8590	5030	3030	7600	2210	1680	1240
29	2690	3000	1950	2300	---	8540	5560	3190	8380	1860	1600	1320
30	2590	2800	1950	2300	---	7700	5130	2940	8480	1990	1230	1150
31	2430	---	1800	2350	---	6540	---	3550	---	1990	1390	---
TOTAL	60030	87240	54950	71200	75300	356060	172430	162380	118640	132580	40983	37501
MEAN	1936	2908	1773	2297	2689	11490	5748	5238	3955	4277	1322	1250
MAX	3180	3970	2500	2800	3300	23200	8210	11600	8480	8720	2440	1720
MIN	1100	1750	1200	1650	2250	3500	3910	2940	2560	1860	564	565
AC-FT	119100	173000	109000	141200	149400	706200	342000	322100	235300	263000	81290	74380

CAL YR 1978 TOTAL 1421314 MEAN 3894 MAX 61000 MIN 334 AC-FT 2819000
WTR YR 1979 TOTAL 1369294 MEAN 3751 MAX 23200 MIN 564 AC-FT 2716000

06796000 PLATTE RIVER AT NORTH BEND, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water year 1973 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1972 to September 1977.
WATER TEMPERATURES: October 1972 to September 1977.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 790 micromhos June 25, 1973; minimum daily, 218 micromhos Sept. 19, 1977.
WATER TEMPERATURE: Maximum, 29.5°C several days during summer periods, minimum, 0.0°C on many days during winter periods.

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (JTU) (00070)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT										
26...	1050	1260	390	7.9	6.5	45	11.6	2.2	K135	400
DEC										
01...	1300	8000	420	7.7	.5	20	--	3.6	K180	--
JAN										
04...	1115	2000	514	7.5	.5	10	--	3.0	700	560
29...	1150	2310	370	7.3	.5	15	9.3	3.4	230	--
MAR										
01...	1200	3710	365	7.7	.5	10	9.5	.4	200	228
15...	1630	18100	390	7.3	.5	70	--	--	K3300	20000
29...	1500	8840	448	7.5	7.0	45	6.4	4.8	K100	38000
APR										
23...	1040	5960	427	8.2	15.0	270	8.3	6.1	7300	25000
MAY										
24...	1200	4620	480	8.3	17.5	30	--	6.3	K150	144
JUN										
20...	1150	2830	437	8.3	19.0	40	9.6	6.7	K270	580
29...	1800	8630	665	8.6	27.0	190	7.1	8.0	6000	8400
JUL										
18...	1085	2230	660	8.4	22.5	45	9.2	4.9	250	120
AUG										
13...	1230	920	472	8.8	21.5	25	--	2.6	K120	140
SEP										
11...	1420	925	391	8.2	23.0	30	9.0	5.1	K100	88

K Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)
OCT										
26...	20	276	.38	939	.53	.01	.73	.74	1.3	.22
DEC										
01...	9.7	292	.40	6310	.78	.06	.55	.61	1.4	.23
JAN										
04...	13	379	.52	2050	1.1	.07	.60	.67	1.8	.30
29...	11	279	.38	1740	.85	.23	.25	.48	1.3	.23
MAR										
01...	7.8	--	.36	2610	.77	.17	.41	.58	1.4	.24
15...	9.4	--	.34	12100	.93	.39	1.4	1.8	2.7	.57
29...	9.7	303	.41	7230	1.0	.20	1.2	1.4	2.4	.41
APR										
23...	9.9	290	.40	4730	.63	.26	2.4	2.7	3.3	.67
MAY										
24...	--	--	.44	4050	--	--	1.2	--	1.6	--
JUN										
20...	11	306	.42	2340	.03	.02	1.8	1.8	1.8	.28
29...	19	--	.63	10800	--	.04	2.4	2.4	--	.58
JUL										
18...	21	450	.61	2710	.03	.01	.95	.96	.99	.33
AUG										
13...	13	--	.47	859	.05	.02	.94	.96	1.0	.28
SEP										
11...	9.2	266	.36	664	.04	.02	1.4	1.4	1.4	.29

06796000 PLATTE RIVER AT NORTH BEND, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	COLOR (PLAT-INUM-COBALT UNITS) (00080)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE (MG/L AS HCO3) (00440)	CAR-BONATE (MG/L AS CO3) (00445)
DEC												
01...	1300	--	--	150	19	43	10	28	1.0	8.1	--	--
MAR												
01...	1200	--	--	140	3	43	8.6	22	.8	8.0	--	--
15...	1630	56	56	140	23	41	8.6	22	.8	11	140	0
JUN												
29...	1400	30	130	240	89	70	17	53	1.5	12	190	0
AUG												
13...	1230	--	--	190	16	53	13	32	1.0	11	--	--

DATE	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N) (00607)	NITRO-GEN,NH4 + ORG. SUSP. TOTAL (MG/L AS N) (00624)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P) (00666)	ARSENIC TOTAL (UG/L AS AS) (01002)
DEC												
01...	130	65	.3	42	288	.80	--	--	--	--	.17	--
MAR												
01...	140	43	.3	44	261	--	--	--	--	--	--	--
15...	110	60	.3	21	247	.91	.27	1.0	.50	1.3	.29	6
JUN												
29...	160	170	.5	28	465	.30	.00	1.1	1.3	1.1	.11	9
AUG												
13...	170	76	.4	45	346	--	--	--	--	--	.07	--

DATE	ARSENIC SUS-PENDED TOTAL (UG/L AS AS) (01001)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CADMIUM SUS-PENDED RECOV-ERABLE (UG/L AS CD) (01026)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	CHRO-MIUM, SUS-PENDED RECOV. (UG/L AS CR) (01031)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO) (01037)	COBALT, SUS-PENDED RECOV-ERABLE (UG/L AS CO) (01036)
DEC												
01...	--	6	100	70	--	--	--	--	--	0	--	--
MAR												
01...	--	--	--	80	--	--	--	--	--	--	--	--
15...	2	4	--	80	8	8	0	20	20	0	0	0
JUN												
29...	3	6	--	200	1	0	2	20	10	10	7	7
AUG												
13...	--	--	--	80	--	--	--	--	--	--	--	--

DATE	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	COPPER, SUS-PENDED RECOV-ERABLE (UG/L AS CU) (01041)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE) (01044)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, SUS-PENDED RECOV-ERABLE (UG/L AS PB) (01050)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN) (01054)
DEC												
01...	--	--	--	4	--	--	60	--	--	--	--	--
MAR												
01...	--	--	--	--	--	--	30	--	--	--	--	--
15...	0	31	25	6	6000	5900	150	61	61	0	190	170
JUN												
29...	0	25	15	10	13000	13000	0	57	57	0	560	550
AUG												
13...	--	--	--	--	--	--	10	--	--	--	--	--

06796000 PLATTE RIVER AT NORTH BEND, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	MERCURY SUSPENDED RECOVERABLE (UG/L AS HG) (71895)	MERCURY DISSOLVED (UG/L AS HG) (71890)	SELENIUM, TOTAL (UG/L AS SE) (01147)	SELENIUM, SUSPENDED TOTAL (UG/L AS SE) (01146)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	SILVER, DISSOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	ZINC, SUSPENDED RECOVERABLE (UG/L AS ZN) (01091)	ZINC, DISSOLVED (UG/L AS ZN) (01090)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
DEC 01...	6	--	--	.0	--	--	2	0	--	--	6	--
MAR 01...	--	--	--	--	--	--	--	--	--	--	--	--
15...	20	.3	.3	.0	1	0	1	0	50	30	20	16
JUN 29...	10	.2	.1	.1	1	0	1	0	100	90	10	37
AUG 13...	3	--	--	--	--	--	--	--	--	--	--	--

DATE	TIME	PERTHANE TOTAL (UG/L) (39034)	PCB, TOTAL (UG/L) (39516)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG) (39519)	ALDRIN, TOTAL (UG/L) (39330)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG) (39333)	CHLORDANE, TOTAL (UG/L) (39350)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG) (39351)	DDD, TOTAL (UG/L) (39360)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG) (39363)	DDE, TOTAL (UG/L) (39365)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG) (39368)
DEC 01...	1300	--	--	0	--	.0	--	0	--	.0	--	.0
MAR 15...	1630	.00	.0	--	.00	--	.0	--	.00	--	.00	--
MAY 24...	1200	--	--	0	--	.0	--	0	--	.0	--	.0
JUN 29...	1400	.00	.0	--	.00	--	.0	--	.00	--	.00	--
AUG 13...	1230	--	--	0	--	.0	--	0	--	.0	--	.0

DATE	DDT, TOTAL (UG/L) (39370)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG) (39373)	DIAZINON, TOTAL (UG/L) (39570)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG) (39571)	DIELDRIN TOTAL (UG/L) (39380)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG) (39383)	ENDOSULFAN, TOTAL (UG/L) (39388)	ENDRIN, TOTAL (UG/L) (39390)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG) (39393)	ETHION, TOTAL (UG/L) (39398)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG) (39399)	HEPTACHLOR, TOTAL (UG/L) (39410)
DEC 01...	--	.0	--	.0	--	.0	--	--	.0	--	.0	--
MAR 15...	.00	--	.00	--	.00	--	.00	.00	--	.00	--	.00
MAY 24...	--	.0	--	.0	--	.0	--	--	.0	--	.0	--
JUN 29...	.00	--	.01	--	.00	--	.00	.00	--	.00	--	.00
AUG 13...	--	.0	--	<.4	--	.0	--	--	.0	--	<.4	--

06796000 PLATTE RIVER AT NORTH BEND, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	HEPTA-CHLOR, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39413)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L) (39420)	HEPTA-CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG) (39423)	LINDANE TOTAL (UG/L) (39340)	LINDANE TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39343)	MALA-THION, TOTAL (UG/L) (39530)	MALA-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39531)	METH-OXY-CHLOR, TOT. IN BOTTOM MATL. (UG/KG) (39481)	METHYL PARA-THION, TOTAL (UG/L) (39600)	METHYL PARA-THION, TOT. IN BOTTOM MATL. (UG/KG) (39601)	METHYL TRI-THION, TOTAL (UG/L) (39790)
DEC											
01...	.0	--	.0	--	.0	--	.0	.0	--	.0	--
MAR											
15...	--	.00	--	.00	--	.00	--	--	.00	--	.00
MAY											
24...	.0	--	.0	--	.0	--	.0	.0	--	.0	--
JUN											
29...	--	.00	--	.00	--	.00	--	--	.00	--	.00
AUG											
13...	.0	--	.0	--	.0	--	<.4	.0	--	<.4	--

DATE	METHYL TRI-THION, TOT. IN BOTTOM MATL. (UG/KG) (39791)	PARA-THION, TOTAL (UG/L) (39540)	PARA-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39541)	TOX-APHENE, TOTAL (UG/L) (39400)	TOXA-PHENE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39403)	TOTAL TRI-THION (UG/L) (39786)	TRI-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39787)	2,4-D, TOTAL (UG/L) (39730)	2,4,5-T TOTAL (UG/L) (39740)	MIREX, TOTAL (UG/L) (39755)	SILVEX, TOTAL (UG/L) (39760)
DEC											
01...	.0	--	.0	--	0	--	.0	--	--	--	--
MAR											
15...	--	.00	--	0	--	.00	--	.12	.01	.00	.00
MAY											
24...	.0	--	.0	--	0	--	.0	--	--	--	--
JUN											
29...	--	.00	--	0	--	.00	--	.07	.00	.00	.00
AUG											
13...	<.4	--	<.4	--	0	--	<.4	--	--	--	--

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70344)	SED. SUSP. FALL DIAM. % FINER THAN .500 MM (70345)	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM (70346)
MAR										
15...	1530	18100	.5	1380	67400	30	36	58	88	100
29...	1430	8920	7.0	610	14700	25	39	56	88	93
JUN										
29...	1145	8630	27.0	680	15800	78	90	96	100	--

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	NUMBER OF SAM-PLING POINTS (00063)	BED MAT. FALL DIAM. % FINER THAN .125 MM (80159)	BED MAT. FALL DIAM. % FINER THAN .250 MM (80160)	BED MAT. FALL DIAM. % FINER THAN .500 MM (80161)	BED MAT. FALL DIAM. % FINER THAN 1.00 MM (80162)	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM (80171)	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM (80172)
MAR											
29...	1430	8920	4	0	19	72	94	99	100	--	--
JUN											
29...	1145	8630	5	0	13	44	67	83	93	98	100

06796978 HOLT CREEK NEAR EMMET, NE

LOCATION.--Lat 42°25'19", long 98°51'46", in SE1/4SW1/4 sec.5, T.28 N., R.13 W., Holt County, Hydrologic Unit 10220001, on left bank 12 ft (4 m) downstream from bridge on county road, 4 mi (6 km) southwest of Emmet.

PERIOD OF RECORD.--October 1978 to September 1979.

GAGE.--Water-stage recorder. Altitude of gage is 2,072 ft (631.5 m) from topographic map.

REMARKS.--Records good except those for winter period, which are poor.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 202 ft³/s (5.72 m³/s) Mar. 23, gage height, 4.76 ft (1.451 m); maximum gage height, 7.61 ft (2.320 m) Feb. 28, backwater from ice; minimum daily discharge, 0.10 ft³/s (0.003 m³/s) Jan. 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.0	5.0	4.2	3.0	.80	.50	28	28	15	10	14	6.8
2	2.9	5.1	3.9	2.9	.70	.50	30	26	16	9.7	12	6.7
3	3.0	5.2	3.8	2.6	.60	.60	37	24	16	10	11	6.4
4	3.0	5.4	5.8	2.5	.50	.60	42	23	13	11	9.5	5.9
5	2.8	5.3	5.0	2.4	.40	.60	41	22	11	9.7	8.2	8.3
6	3.0	4.8	4.5	2.3	.40	.70	35	21	10	10	7.9	6.3
7	3.3	5.0	4.1	2.3	.40	.80	32	19	12	9.7	7.3	5.8
8	3.5	5.2	3.5	2.2	.40	.80	27	18	11	9.7	6.8	8.6
9	3.7	5.1	4.0	2.2	.40	.90	21	23	15	9.0	7.0	7.6
10	3.5	4.9	4.9	2.1	.50	1.0	18	32	19	8.7	6.9	6.5
11	3.6	4.5	5.8	2.1	.50	1.1	46	44	17	8.5	6.7	7.5
12	3.4	5.3	6.2	2.0	.50	1.2	94	49	19	7.9	6.0	12
13	3.6	5.7	6.6	2.0	.50	1.5	123	51	16	6.8	6.2	11
14	3.4	6.4	7.0	2.1	.50	15	120	42	13	6.8	6.5	8.7
15	3.5	8.9	7.6	1.9	.50	150	75	34	11	9.4	6.6	7.9
16	3.5	7.4	7.2	1.7	.40	130	48	28	11	7.6	6.5	7.3
17	3.7	5.2	6.8	1.5	.40	100	36	22	12	7.9	6.9	6.8
18	3.6	4.9	7.0	1.3	.40	84	29	20	12	7.9	11	6.6
19	3.9	4.7	7.6	1.2	.40	97	26	22	11	7.1	41	6.3
20	4.2	4.5	7.4	1.0	.40	87	55	23	9.7	13	19	6.0
21	4.2	4.9	7.0	.90	.50	96	136	20	8.5	8.2	14	5.5
22	4.1	5.6	6.8	.50	.50	166	154	17	8.5	7.3	12	5.1
23	4.4	6.2	6.2	.20	.40	193	99	15	11	7.1	11	5.3
24	4.5	6.8	5.0	.10	.50	154	60	14	9.4	6.8	9.6	5.1
25	4.5	6.0	4.5	.20	.50	133	46	13	12	6.8	8.8	4.9
26	4.3	5.0	4.0	.20	.50	90	41	12	13	6.4	8.7	4.8
27	4.4	4.2	3.8	.30	.50	58	37	11	13	8.8	8.3	4.3
28	4.3	3.5	3.6	.70	.50	51	34	10	14	17	7.6	4.7
29	4.6	4.9	3.4	1.1	---	40	32	9.7	12	15	7.7	4.9
30	4.7	4.5	3.3	1.0	---	34	30	13	11	30	7.7	5.0
31	4.6	---	3.1	.90	---	29	---	12	---	17	7.1	---
TOTAL	116.7	160.1	163.6	47.40	13.50	1717.80	1632	717.7	382.1	310.8	309.5	198.6
MEAN	3.76	5.34	5.28	1.53	.48	55.4	54.4	23.2	12.7	10.0	9.98	6.62
MAX	4.7	8.9	7.6	3.0	.80	193	154	51	19	30	41	12
MIN	2.8	3.5	3.1	.10	.40	.50	18	9.7	8.5	6.4	6.0	4.3
AC-FT	231	318	325	94	27	3410	3240	1420	758	616	614	394

WTR YR 1979 TOTAL 5769.80 MEAN 15.8 MAX 193 MIN .10 AC-FT 11440

06797500 ELKHORN RIVER AT EWING, NE

LOCATION.--Lat 42°16'03", long 98°20'11", in NW1/4SW1/4 sec.35, T.27 N., R.9 W., Holt County, Hydrologic Unit 10220001, on right bank 350 ft (107 m) downstream from bridge on State Highway 420, 0.8 mi (1.3 km) north of Ewing, and 1.5 mi (2.4 km) upstream from South Fork Elkhorn River.

DRAINAGE AREA.--1,400 mi² (3,630 km²), approximately, of which about 740 mi² (1,920 km²) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1947 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,836.24 ft (559.686 m), National Geodetic Vertical Datum of 1929, levels by Nebraska Department of Roads (revised). Prior to Oct. 22, 1952, at site 300 ft (90 m) upstream at same datum.

REMARKS.--Records good except those for winter period, which are poor. Periodic temperature and conductance measurements are published in tables for water quality at miscellaneous sites.

AVERAGE DISCHARGE.--32 years, 166 ft³/s (4.701 m³/s), 120,300 acre-ft/yr (0.148 km³/yr); median of yearly mean discharges, 114 ft³/s (3.228 m³/s), 82,600 acre-ft/yr (0.102 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,500 ft³/s (212 m³/s) June 10, 1962, gage height, 10.60 ft (3.231 m); minimum daily, 5.2 ft³/s (0.15 m³/s) Sept. 6, 1976.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 11.32 ft (3.450 m) June 23, 24, 1947, from floodmark at site 300 ft (90 m) upstream, discharge, 6,600 ft³/s (187 m³/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 500 ft³/s (14.2 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Mar. 17	1230	*1040	29.5	a7.00	2.134	Aug. 19	0300	688	19.5	5.67	1.728
Apr. 16	0430	718	20.3	5.74	1.750						

a Backwater from ice.

Minimum daily discharge, 25 ft³/s (0.71 m³/s) Jan. 29, Feb. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	42	52	32	27	49	349	190	122	109	130	63
2	29	43	50	34	26	52	331	181	116	106	115	58
3	28	43	47	35	28	50	318	169	113	101	110	55
4	28	44	52	32	26	52	313	160	116	99	99	45
5	29	43	50	28	28	56	307	161	117	100	87	46
6	29	43	46	29	30	60	304	167	114	103	78	42
7	30	43	43	28	26	58	300	163	112	102	69	41
8	31	44	40	27	25	64	289	163	118	99	62	40
9	33	45	43	28	27	78	276	192	129	93	57	38
10	31	45	48	27	28	120	265	269	141	88	51	39
11	31	46	52	28	27	140	281	358	142	81	47	38
12	33	46	56	29	26	180	438	293	140	73	43	48
13	32	49	54	28	28	200	524	274	135	71	41	54
14	32	46	50	26	31	220	509	261	134	66	43	61
15	35	44	54	27	30	240	693	242	129	67	43	71
16	34	52	52	27	28	350	686	221	121	64	41	68
17	35	57	54	29	29	600	553	205	125	67	43	64
18	35	55	56	30	31	540	439	189	131	64	74	60
19	35	54	58	29	33	480	369	192	130	62	400	56
20	36	50	56	27	36	458	324	185	123	59	144	53
21	37	47	58	27	35	449	301	173	112	64	111	50
22	38	50	54	28	37	641	353	161	105	71	131	49
23	37	52	50	27	35	672	411	151	109	62	121	46
24	38	54	48	27	34	657	403	143	113	62	115	45
25	40	54	50	28	37	707	384	137	109	59	102	42
26	40	52	50	27	38	712	328	132	104	60	96	40
27	41	50	52	27	47	656	278	127	138	66	89	40
28	42	48	52	26	45	579	245	119	118	79	84	37
29	42	52	48	25	---	489	225	113	118	90	78	36
30	42	54	42	26	---	423	204	126	114	169	71	35
31	42	---	37	27	---	378	---	124	---	168	66	---
TOTAL	1073	1447	1554	875	878	10410	11080	5741	3648	2584	2841	1459
MEAN	34.6	48.2	50.1	28.2	31.4	336	369	185	122	83.4	91.6	48.6
MAX	42	57	58	35	47	712	693	358	142	169	400	71
MIN	28	42	37	25	25	49	204	113	104	59	41	35
AC-FT	2130	2870	3080	1740	1740	20650	21980	11390	7240	5130	5640	2890

CAL YR 1978 TOTAL 62184 MEAN 170 MAX 1910 MIN 22 AC-FT 123300
WTR YR 1979 TOTAL 43590 MEAN 119 MAX 712 MIN 25 AC-FT 86460

06797500 ELKHORN RIVER AT EWING, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1960-1966, 1974-1979.

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	TEMPER-ATURE (DEG C) (00010)
OCT 23...	1305	38	218	8.0
NOV 16...	1215	44	215	2.0
DEC 04...	1750	52	225	.5
JAN 22...	1405	24	630	.5
FEB 26...	1155	38	219	.5
MAR 22...	1255	666	182	3.5
MAY 03...	0930	172	980	9.0
JUN 14...	1115	132	232	26.0
JUL 11...	1020	83	219	25.5
AUG 20...	1625	125	156	27.0
SEP 11...	1540	37	217	23.0

06798000 SOUTH FORK ELKHORN RIVER NEAR EWING, NE

LOCATION.--Lat 42°14'29", long 98°23'53", in SE1/4NE1/4 sec.7, T.26 N., R.9 W., Holt County, Hydrologic Unit 10220001, on right bank 10 ft (3 m) downstream from bridge on county highway, 2.9 mi (4.7 km) southwest of intersection with U.S. Highway 275 in Ewing and 5.5 mi (8.8 km) upstream from mouth.

PERIOD OF RECORD.--July 1947 to September 1953, August 1960 to September 1972, October 1977 to current year. Prior to October 1977 station published as "at Ewing" at sites 4.5 mi (7.2 km) downstream at different datum.

GAGE.--Water-stage recorder. Altitude of gage is 1880 ft (573 m) from topographic map. See WSP 1918 for history of changes prior to June 14, 1963.

REMARKS.--Records good except those for winter period, which are poor.

AVERAGE DISCHARGE.--20 years (1948-53, 1961-72, 1978-79) 65.3 ft^3/s (1.849 m^3/s), 47,310 acre-ft/yr (58.3 hm^3/yr); median of yearly mean discharges, 51 ft^3/s (1.444 m^3/s), 36,900 acre-ft/yr (45.5 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,760 ft^3/s (49.8 m^3/s) Apr. 5, 1949, gage height, 5.02 ft (1.530 m); maximum gage height, 6.12 ft (1.865 m) Mar. 7, 1949, backwater from ice, site then in use; minimum daily discharge, 11 ft^3/s (0.31 m^3/s) Jan. 15, 1953.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 21, 1947, reached a stage of 7.22 ft (2.201 m), from floodmarks at site and datum then in use (discharge, about 3,400 ft^3/s (96.3 m^3/s)).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 202 ft^3/s (5.72 m^3/s) Mar. 24 at 0830, gage height, 1.95 ft (0.594 m), no other peaks above base of 200 ft^3/s (5.66 m^3/s); maximum gage height, 3.26 ft (0.994 m) Mar. 4, backwater from ice; minimum daily discharge, 20 ft^3/s (0.57 m^3/s) Feb. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	30	40	22	24	41	58	51	50	37	42	31
2	29	31	39	24	22	45	51	51	48	40	41	31
3	27	30	37	26	23	43	57	53	47	41	42	31
4	29	28	47	24	20	44	55	50	45	46	38	30
5	31	27	43	23	23	47	64	50	47	41	33	28
6	31	30	35	24	25	52	61	51	43	43	30	26
7	31	31	30	23	23	48	50	47	41	42	27	26
8	28	31	28	22	24	49	51	49	47	45	24	34
9	28	30	30	23	26	50	52	56	52	44	26	31
10	30	30	31	22	26	110	52	81	52	42	26	28
11	30	34	34	23	25	94	69	103	48	40	30	27
12	28	38	38	24	24	93	89	123	45	37	29	38
13	28	34	34	22	23	89	130	105	47	37	28	31
14	28	38	36	21	27	79	158	98	45	35	27	27
15	30	38	37	23	25	81	132	94	43	39	28	30
16	30	37	35	25	23	128	100	87	39	34	30	30
17	30	36	33	27	24	126	95	78	38	33	30	30
18	31	35	35	29	26	108	94	73	56	32	30	27
19	30	33	37	28	29	103	83	74	52	33	75	27
20	28	32	33	29	32	107	74	70	45	38	75	28
21	28	33	35	30	31	132	72	62	42	35	67	27
22	31	36	37	32	34	153	72	67	43	32	58	27
23	30	37	33	29	32	167	71	65	56	29	60	27
24	30	40	28	27	31	179	68	58	50	32	69	27
25	30	39	30	28	33	152	72	52	48	31	56	27
26	30	37	28	26	38	109	73	52	43	31	47	27
27	28	34	29	25	43	91	82	47	69	30	38	27
28	27	36	29	24	38	83	78	41	52	37	47	31
29	28	39	26	22	---	74	68	41	46	37	41	31
30	30	38	24	23	---	65	58	60	43	60	41	31
31	31	---	23	22	---	60	---	50	---	46	34	---
TOTAL	911	1022	1034	772	774	2802	2289	2039	1422	1179	1269	873
MEAN	29.4	34.1	33.4	24.9	27.6	90.4	76.3	65.8	47.4	38.0	40.9	29.1
MAX	31	40	47	32	43	179	158	123	69	60	75	38
MIN	27	27	23	21	20	41	50	41	38	29	24	26
AC-FT	1810	2030	2050	1530	1540	5560	4540	4040	2820	2340	2520	1730

CAL YR 1978 TOTAL 23088 MEAN 63.3 MAX 639 MIN 21 AC-FT 45800
WTR YR 1979 TOTAL 16386 MEAN 44.9 MAX 179 MIN 20 AC-FT 32500

06798300 CLEARWATER CREEK NR CLEARWATER, NE

LOCATION.--Lat 42°08'20", long 98°12'10", in SW1/4NW1/4 sec.13, T.25 N., R.8 W., Antelope County, Hydrologic Unit 10220001, on left bank at downstream side of county road bridge, 0.5 mi (0.8 km) west and 2 mi (3 km) south of Clearwater, and about 3 mi (5 km) upstream from mouth.

DRAINAGE AREA.--210 mi² (540 km²), approximately, of which about 130 mi² (340 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--July 1961 to September 1964, October 1977 to current year.

GAGE.--Water-stage recorder. Prior to Sept. 7, 1961, wire-weight gage at same site and datum.

REMARKS.--Records fair except those for winter period, which are poor.

AVERAGE DISCHARGE.--5 years (water years 1962-64, 1978-79) 34.8 ft³/s (0.986 m³/s), 25,210 acre-ft/yr (31.1 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 710 ft³/s (20.1 m³/s) Mar. 27, 1962, gage height, 8.82 ft (2.688 m); minimum daily discharge, 11 ft³/s (0.31 m³/s) July 13, 1978.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 100 ft³/s (2.83 m³/s) and maximum(*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Mar. 10	----	ice jam		*6.57	2.003	May 12	0400	102	2.9	5.47	1.667
Mar. 24	0300	239	6.8	6.45	1.966	July 30	0430	104	2.9	5.43	1.655
Apr. 13	2300	172	4.9	6.01	1.832						

Minimum daily discharge, 15 ft³/s (0.42 m³/s) Oct. 2, Jan. 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	20	23	17	19	29	49	36	33	23	26	22
2	15	21	23	18	19	31	49	38	32	23	27	21
3	16	21	22	19	21	30	49	38	28	24	25	21
4	17	22	23	18	19	31	50	34	25	26	22	19
5	17	21	22	18	22	33	44	31	25	26	21	22
6	18	22	21	18	24	36	36	29	23	28	21	19
7	18	22	20	19	22	34	35	27	23	27	19	18
8	18	22	19	17	24	35	32	32	25	26	18	19
9	17	23	20	17	24	37	31	47	30	24	18	19
10	18	23	22	18	25	40	31	65	35	24	18	18
11	18	23	22	18	24	43	47	87	30	22	18	16
12	18	25	24	17	22	46	99	90	28	21	18	22
13	19	25	23	16	22	52	157	69	27	20	18	22
14	19	25	22	15	23	56	152	54	25	18	18	20
15	19	23	23	16	21	62	89	42	24	19	19	20
16	20	24	22	18	20	68	58	36	25	20	21	18
17	20	23	22	20	21	74	50	33	33	19	20	18
18	20	23	22	21	22	84	46	40	45	18	25	17
19	20	22	22	20	24	77	42	44	37	17	56	19
20	20	21	21	21	26	90	42	50	30	17	32	18
21	20	21	22	20	24	99	42	46	27	17	27	18
22	21	22	22	19	25	174	42	37	27	17	26	18
23	21	22	21	19	24	211	36	28	35	17	23	18
24	19	23	20	20	23	224	34	26	38	17	22	18
25	19	21	21	21	25	166	52	26	33	17	20	17
26	20	20	20	20	28	125	68	26	30	17	21	17
27	19	20	21	19	30	93	68	27	28	17	21	17
28	20	20	22	18	27	64	49	26	26	28	21	17
29	20	22	21	17	---	58	41	27	24	22	21	17
30	20	23	19	18	---	51	38	35	23	73	20	17
31	21	---	18	18	---	50	---	35	---	31	20	---
TOTAL	583	665	665	570	650	2303	1658	1261	874	715	702	562
MEAN	18.8	22.2	21.5	18.4	23.2	74.3	55.3	40.7	29.1	23.1	22.6	18.7
MAX	21	25	24	21	30	224	157	90	45	73	56	22
MIN	15	20	18	15	19	29	31	26	23	17	18	16
AC-FT	1160	1320	1320	1130	1290	4570	3290	2500	1730	1420	1390	1110

CAL YR 1978 TOTAL 12664 MEAN 34.7 MAX 306 MIN 11 AC-FT 25120
WTR YR 1979 TOTAL 11208 MEAN 30.7 MAX 224 MIN 15 AC-FT 22230

06798500 ELKHORN RIVER AT NELIGH, NE

LOCATION.--Lat 42°07'20", long 98°01'40", in sec.20, T.25 N., R.6 W., Antelope County, Hydrologic Unit 10220001, on right bank 30 ft (9 m) downstream from bridge on old State Highway 14 at Neligh.

DRAINAGE AREA.--2,200 mi² (5,700 km²), approximately, of which about 1,200 mi² (3,110 km²) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1930 to September 1958, August 1960 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1006: 1935, 1942. WSP 1390: 1931-32, 1937(M). WSP 1730: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,714.00 ft (522.427 m) (revised) National Geodetic Vertical Datum of 1929. Prior to Apr. 16, 1933, nonrecording gage at site 10 ft (3 m) downstream at present datum. Apr. 16, 1933, to Jan. 23, 1939, nonrecording gage at bridge 30 ft (9 m) upstream at present datum. Jan. 24, 1939 to Oct. 9, 1958 and Aug. 8, 1960 to Sept. 8, 1970 water-stage recorder at site 20 ft (6 m) upstream at present datum.

REMARKS.--Records good except those for winter period, which are poor.

AVERAGE DISCHARGE.--47 years, 279 ft³/s (7.901 m³/s), 202,100 acre-ft/yr (0.249 km³/yr); median of yearly mean discharges, 230 ft³/s (6.514 m³/s), 167,000 acre-ft/yr (0.206 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 12,000 ft³/s (340 m³/s) June 23, 1947, gage height, 12.53 ft (3.819 m), from main channel rating curve extended above 4,900 ft³/s (139 m³/s) and field estimate of flow through break in highway fill; minimum daily, 12 ft³/s (0.34 m³/s) July 2, 1932.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 29, 1960, reached a stage of 12.24 ft (3.731 m), from floodmark, discharge, 12,300 ft³/s (348 m³/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,000 ft³/s (28.3 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Mar. 18	----	1500	42.5	a*7.24	2.207	Apr. 14	1130	1140	32.3	5.29	1.612
Mar. 22	1130	*1530	43.3	5.71	1.740	Aug. 19	1730	1040	29.5	5.46	1.664

a Ice jam.

Minimum daily discharge, 60 ft³/s (1.70 m³/s) Jan. 8, 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	83	112	135	64	92	125	487	355	272	197	255	151
2	81	114	120	76	90	135	464	348	263	183	217	141
3	80	115	104	80	94	125	438	326	242	171	189	131
4	81	114	100	70	90	135	418	301	230	183	166	124
5	83	117	110	64	100	145	429	287	219	178	148	122
6	84	114	100	68	104	160	417	278	214	193	134	122
7	87	119	94	64	96	155	424	267	201	192	122	112
8	89	122	84	60	94	180	432	286	205	188	116	110
9	90	123	88	64	106	210	429	415	247	180	114	110
10	91	122	94	62	110	200	439	663	300	179	114	104
11	94	124	110	66	108	240	557	869	275	186	108	103
12	95	135	120	70	104	300	866	868	258	175	108	125
13	97	144	116	66	112	330	1070	797	235	164	106	150
14	97	132	110	60	125	350	1090	677	216	153	110	139
15	97	135	120	70	120	370	1030	573	206	166	110	136
16	95	141	120	78	108	500	981	501	199	151	114	137
17	100	140	114	90	110	800	823	449	228	153	114	133
18	103	149	120	94	116	1400	719	430	269	151	151	125
19	102	138	130	94	125	1240	663	427	272	141	647	122
20	106	130	125	100	120	900	632	392	241	138	453	121
21	106	125	140	98	116	785	565	366	209	134	277	118
22	106	125	150	100	120	1400	592	327	189	138	224	118
23	111	140	145	90	114	1430	660	289	209	127	217	115
24	109	170	120	82	106	1330	683	271	226	127	208	117
25	109	165	125	90	104	1170	748	266	222	127	198	118
26	109	155	120	88	120	1070	694	257	212	116	192	116
27	109	145	130	86	125	942	601	246	258	127	186	120
28	109	130	145	84	116	800	521	232	280	224	175	119
29	112	145	116	86	---	695	489	222	224	224	172	116
30	111	155	90	90	---	578	384	254	210	351	166	116
31	107	---	74	86	---	499	---	293	---	320	156	---
TOTAL	3033	3999	3569	2440	3045	18699	18705	12532	7031	5437	5767	3691
MEAN	97.8	133	115	78.7	109	603	624	404	234	175	186	123
MAX	112	170	150	100	125	1430	1090	869	300	351	647	151
MIN	80	112	74	60	90	125	384	222	189	116	106	103
AC-FT	6020	7930	7080	4840	6040	37090	37100	24860	13950	10780	11440	7320

CAL YR 1978 TOTAL 129909 MEAN 356 MAX 4730 MIN 64 AC-FT 257700
WTR YR 1979 TOTAL 87948 MEAN 241 MAX 1430 MIN 60 AC-FT 174400

06798500 ELKHORN RIVER AT NELIGH, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974-1979.

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	TEMPER-ATURE (DEG C) (00010)
OCT				
23...	1335	110	238	9.0
NOV				
13...	1415	148	238	5.5
DEC				
27...	1250	124	280	.5
JAN				
15...	1350	69	302	.5
FEB				
09...	1400	105	270	.5
MAR				
01...	1350	120	259	.5
19...	1330	1220	205	1.0
APR				
09...	1340	442	255	9.0
JUN				
13...	1520	235	246	29.5
JUL				
09...	1330	180	238	28.0
AUG				
20...	1215	430	158	24.5
SEP				
11...	1840	101	260	21.5

06799000 ELKHORN RIVER AT NORFOLK, NE

LOCATION.--Lat 42°00'14", long 97°25'31", in SW1/4SW1/4 sec.34, T.24 N., R.1 W., Madison County, Hydrologic Unit 10220001, on left bank 200 ft (61 m) downstream from U.S. Highway 81 bridge, 1 mi (2 km) south of intersection of U.S. Highways 81 and 275, and 3.6 mi (5.8 km) upstream from North Fork Elkhorn River.

DRAINAGE AREA.--2,790 mi² (7,230 km²), approximately, of which about 1,790 mi² (4,640 km²) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1896 to November 1903 (no winter records), October 1945 to current year. Gage height records collected at site 200 ft (60 m) upstream from May 10, 1941 to Sept. 26, 1945 are contained in reports of U.S. Weather Bureau. Published as "near Norfolk" from October 1957 to September 1977.

REVISED RECORDS.--WSP 1390: 1898-1900. WSP 1730: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,504.95 ft (458.709 m) National Geodetic Vertical Datum of 1929. See WSP 1918 for history of changes prior to Aug. 30, 1958. Aug. 30, 1958 to July 27, 1978, water-stage recorder at site 3.2 mi (5.1 km) upstream at datum 17.88 ft (5.450 m) higher.

REMARKS.--Records fair except those for winter period, which are poor.

AVERAGE DISCHARGE.--34 years, 490 ft³/s (13.88 m³/s), 355,000 acre-ft/yr (0.438 km³/yr); median of yearly mean discharges, 410 ft³/s (11.61 m³/s), 297,000 acre-ft/yr (0.366 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,900 ft³/s (479 m³/s) June 14, 1967, gage height, 8.52 ft (2.597 m), site and datum then in use; maximum gage height observed, 13.63 ft (4.154 m) Mar. 11, 1949, at site 200 ft (60 m) upstream at present datum, backwater from ice; minimum daily discharge, 37 ft³/s (1.05 m³/s) Aug. 30, 1976.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 13, 1944, reached a stage of 11.8 ft (3.60 m), at site 200 ft (60 m) upstream at present datum, discharge, 14,300 ft³/s (405 m³/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,000 ft³/s (56.6 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Mar. 18	----	3000	85.0	a*6.91	2.106	May 10	1100	*3970	112	5.54	1.689
Mar. 22	1300	3350	94.9	5.10	1.554						

a Ice jam.

Minimum daily discharge, 113 ft³/s (3.20 m³/s) Oct. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	121	172	220	230	145	215	797	770	463	304	467	253
2	128	183	210	220	145	225	797	1140	431	300	387	248
3	120	195	210	210	145	200	804	804	418	293	347	229
4	113	190	230	200	140	210	763	736	409	309	311	218
5	115	188	250	185	140	230	717	665	386	316	279	217
6	118	183	240	175	140	280	710	646	369	294	252	233
7	123	185	230	170	135	300	736	622	335	272	239	212
8	129	192	180	165	135	310	730	665	316	275	220	200
9	147	192	160	160	135	320	691	723	341	273	212	194
10	149	186	175	155	135	330	659	2900	387	272	293	191
11	155	179	210	165	135	380	757	1550	396	268	289	180
12	153	180	240	170	135	440	964	979	392	265	242	186
13	148	184	260	170	135	490	919	897	383	254	215	199
14	145	175	265	165	135	690	854	818	375	245	209	199
15	150	168	260	155	135	880	919	777	351	249	200	189
16	143	165	260	155	135	840	1070	691	355	236	198	183
17	148	175	260	150	140	1400	1010	717	355	233	211	182
18	150	176	260	155	140	2400	958	1180	371	221	220	176
19	158	159	265	160	145	2140	927	1010	387	223	237	163
20	163	155	255	165	145	1880	964	949	371	213	579	162
21	169	145	260	170	150	1280	919	743	351	213	619	162
22	166	135	255	170	155	2520	854	777	327	215	424	158
23	158	135	250	165	160	2520	915	568	327	206	349	159
24	161	130	245	160	170	1600	910	510	335	234	308	162
25	163	125	255	160	175	1420	968	492	359	234	292	160
26	158	125	250	160	185	1310	990	482	347	216	300	160
27	158	125	240	160	190	1210	875	449	339	303	292	164
28	155	125	235	160	200	1240	797	426	343	263	276	166
29	163	130	240	160	---	1100	723	398	363	392	259	162
30	179	140	240	155	---	1060	710	451	331	463	254	163
31	173	---	250	150	---	919	---	456	---	634	250	---
TOTAL	4579	4897	7360	5250	4160	30339	25407	24991	11013	8688	9230	5630
MEAN	148	163	237	169	149	979	847	806	367	280	298	188
MAX	179	195	265	230	200	2520	1070	2900	463	634	619	253
MIN	113	125	160	150	135	200	659	398	316	206	198	158
AC-FT	9080	9710	14600	10410	8250	60180	50390	49570	21840	17230	18310	11170

CAL YR 1978 TOTAL 167345 MEAN 458 MAX 5800 MIN 102 AC-FT 331900
WTR YR 1979 TOTAL 141544 MEAN 388 MAX 2900 MIN 113 AC-FT 280800

06799000 ELKHORN RIVER AT NORFOLK, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1960-1969, 1974 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	TURBIDITY (JTU) (00070)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L) (00310)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT										
10...	1700	161	336	8.2	18.0	10	9.0	3.2	K11000	600
NOV										
08...	0815	188	325	7.5	5.5	9	11.4	2.8	1800	2900
DEC										
07...	1000	217	371	7.2	.0	10	10.4	2.0	2030	860
JAN										
03...	1500	198	395	7.6	.0	8	--	1.6	260	248
MAR										
01...	0945	214	335	7.9	.0	5	10.4	--	230	--
20...	1515	1790	245	7.5	5.0	75	6.6	6.2	K333	20000
APR										
11...	0945	723	325	8.0	6.0	30	8.4	2.8	500	1560
MAY										
02...	1130	1210	350	8.1	10.5	55	9.8	3.9	>6000	K22000
JUL										
02...	1830	280	300	8.9	28.0	20	8.5	7.4	400	140
18...	1500	235	330	8.7	27.5	25	9.2	7.7	190	110
AUG										
15...	1045	201	352	8.3	17.5	25	9.2	6.8	933	383
SEP										
25...	1700	170	310	8.5	24.0	25	9.5	7.4	K170	210

K Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, DISSOLVED (TONS PER AC-FT) (70303)	SOLIDS, DISSOLVED (TONS PER DAY) (70302)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)
OCT										
10...	4.1	230	.31	100	.22	.05	.50	.55	.77	.26
NOV										
08...	2.9	214	.29	109	.33	.06	.40	.46	.79	.18
DEC										
07...	3.8	246	.33	144	.67	.18	.54	.72	1.4	.25
JAN										
03...	3.9	288	.39	154	.97	.08	.48	.56	1.5	.29
MAR										
01...	4.1	--	.31	130	.68	.39	.25	.64	1.3	.25
20...	4.0	178	.24	860	.77	.50	1.7	2.2	3.0	.85
APR										
11...	5.0	230	.31	449	.57	.09	.91	1.0	1.6	.28
MAY										
02...	4.7	239	.33	781	1.3	.08	1.5	1.6	2.9	.50
JUL										
02...	3.9	240	.33	181	.03	.04	1.3	1.3	1.3	.38
18...	3.6	230	.31	146	.03	.01	.69	.70	.73	.37
AUG										
15...	3.9	--	.33	130	.03	.03	1.1	1.1	1.1	.35
SEP										
25...	3.3	224	.30	103	.05	.05	.95	1.0	1.1	.31

06799000 ELKHORN RIVER AT NORFOLK, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	ALKALINITY (MG/L AS CACO3) (00410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)
NOV 08...	0815	150	0	49	7.4	9.8	.3	6.7	160	6.7
MAR 01...	0945	160	0	49	8.2	10	.3	6.2	160	11
MAY 02...	1130	150	3	48	8.0	13	.5	7.8	150	21
AUG 15...	1045	160	0	49	8.1	15	.5	7.2	160	16

DATE	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	PHOSPHORUS, DISSOLVED (MG/L AS P) (00666)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BARIUM, DISSOLVED (UG/L AS BA) (01005)	BORON, DISSOLVED (UG/L AS B) (01020)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)
NOV 08...	.3	36	217	.32	.18	5	0	50	1	0
MAR 01...	.3	40	225	--	.24	--	--	40	--	--
MAY 02...	.4	29	227	1.1	.28	5	200	60	0	0
AUG 15...	.3	44	280	--	.01	--	--	60	--	--

DATE	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, DISSOLVED (UG/L AS PB) (01049)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	MERCURY SUSPENDED RECOVERABLE (UG/L AS HG) (71895)	MERCURY DISSOLVED (UG/L AS HG) (71890)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	SILVER, DISSOLVED (UG/L AS AG) (01075)	ZINC, DISSOLVED (UG/L AS ZN) (01090)
NOV 08...	3	90	--	10	--	--	.0	1	0	10
MAR 01...	--	10	--	70	--	--	--	--	--	--
MAY 02...	4	110	1	0	.1	.1	.0	2	0	20
AUG 15...	--	20	--	20	--	--	--	--	--	--

06799000 ELKHORN RIVER AT NORFOLK, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)
OCT							
10...	1700	161	18.0	146	63	--	--
MAR							
20...	1445	1790	5.0	2080	10100	--	--
21...	0820	1270	4.0	2170	7440	--	--
23...	0815	2610	.0	2900	20400	14	16
MAY							
02...	1045	1210	10.5	1240	4050	--	--
11...	1500	1350	10.0	1810	6600	--	--

DATE	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70344)	SED. SUSP. FALL DIAM. % FINER THAN .500 MM (70345)	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM (70346)
OCT						
10...	--	--	--	--	--	--
MAR						
20...	--	47	55	81	97	99
21...	--	25	52	83	97	100
23...	19	37	55	83	97	100
MAY						
02...	--	38	61	88	99	100
11...	--	27	40	81	97	100

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	NUMBER OF SAM-PLING POINTS (00063)	BED MAT. FALL DIAM. % FINER THAN .062 MM (80158)	BED MAT. FALL DIAM. % FINER THAN .125 MM (80159)	BED MAT. FALL DIAM. % FINER THAN .250 MM (80160)	BED MAT. FALL DIAM. % FINER THAN .500 MM (80161)	BED MAT. FALL DIAM. % FINER THAN 1.00 MM (80162)	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM (80171)	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM (80172)
OCT												
10...	1700	161	4	0	1	34	76	84	94	99	100	--
MAR												
20...	1445	1790	3	0	5	60	98	100	--	--	--	--
21...	0820	1270	3	0	4	48	91	98	99	100	--	--
23...	0815	2610	3	0	2	20	72	83	88	95	99	100
MAY												
02...	1045	1210	6	0	6	38	84	96	99	100	--	--
11...	1500	1350	4	0	2	29	76	92	98	100	--	--

ELKHORN RIVER BASIN

06799080 WILLOW CREEK NEAR FOSTER, NE

LOCATION.--Lat 42°10'38", long 97°,40'02" in NW1/4NE1/4 sec.4, T.25 N., R.3 W., Pierce County, Hydrologic Unit 10220002, on left downstream bank at county road bridge, 6.8 mi (10.9 km) south of Foster and 7.2 mi (11.6 km) southwest of Pierce.

PERIOD OF RECORD.--October 1975 (monthly discharge only) to current year.

GAGE.--Water-stage recorder.

REMARKS.--Records good except those for winter period, which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 275 ft³/s (7.79 m³/s) Mar. 23, 1979, gage height, 7.62 ft (2.323 m), backwater from ice; gage height, 8.21 ft (2.502 m) Mar. 19, 1978, from highwater mark, backwater from ice; minimum daily, 2.4 ft³/s (0.068 m³/s) Feb. 25, 1979.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 275 ft³/s (7.79 m³/s) Mar. 23, gage height, 7.62 ft (2.323 m), backwater from ice; minimum daily, 2.4 ft³/s (0.068 m³/s) Feb. 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.2	5.2	4.5	3.4	3.7	3.1	17	12	11	7.1	8.4	5.5
2	3.1	4.4	4.0	3.7	3.6	3.5	18	16	10	7.0	8.0	5.2
3	2.9	4.4	3.7	4.5	3.7	3.1	18	13	9.0	7.2	7.8	5.0
4	2.9	4.2	5.4	4.0	3.3	3.0	18	12	8.3	7.0	7.4	4.7
5	3.0	4.0	5.2	4.0	3.7	2.8	17	11	7.8	7.2	7.1	4.7
6	3.0	3.8	4.9	4.5	3.9	3.7	16	11	7.6	7.3	6.6	4.7
7	3.2	4.1	4.5	4.3	3.4	3.5	15	9.7	7.2	7.7	6.2	4.5
8	3.5	4.2	4.0	4.0	3.2	3.7	14	11	7.5	7.8	5.7	4.5
9	3.5	4.4	4.3	4.7	2.7	4.3	13	20	9.2	7.4	6.1	4.3
10	3.5	4.2	5.4	4.6	3.3	3.8	13	62	11	7.0	6.6	4.3
11	3.8	4.0	5.4	4.8	3.5	5.4	18	127	9.1	6.2	6.1	4.1
12	3.6	4.5	6.0	5.0	3.2	6.0	22	102	8.7	6.1	5.6	4.7
13	3.8	5.0	5.4	4.0	3.4	5.8	40	53	8.0	5.9	5.3	5.0
14	3.8	3.3	5.0	3.5	3.8	6.4	33	33	7.6	5.6	5.6	5.0
15	3.9	4.0	4.7	4.2	3.2	5.8	22	25	7.2	6.7	5.6	4.8
16	3.5	4.6	5.0	4.3	2.5	10	17	20	7.1	6.0	6.0	4.7
17	3.7	4.8	5.4	5.0	2.7	25	15	18	8.3	6.0	6.2	4.7
18	3.8	4.4	5.0	5.2	3.2	40	14	21	9.4	5.6	5.9	4.5
19	3.8	3.1	5.2	5.2	3.5	70	13	23	8.7	5.4	9.8	4.4
20	4.2	4.1	4.5	4.8	3.4	50	16	20	7.5	5.4	7.7	4.4
21	4.2	4.3	5.0	4.7	3.0	40	14	20	6.9	5.1	7.1	4.3
22	4.1	4.3	5.0	5.0	3.2	90	13	17	6.8	7.0	7.7	4.3
23	4.3	4.8	4.8	4.0	3.0	230	12	14	8.3	7.8	8.0	4.2
24	4.3	4.8	3.5	3.9	2.7	180	11	13	8.0	7.2	8.3	4.2
25	4.1	4.9	4.3	4.5	2.4	69	13	12	7.5	7.0	7.9	4.4
26	3.8	4.7	4.0	4.4	2.8	40	15	11	7.3	6.0	7.7	4.6
27	4.1	4.4	4.5	4.0	2.7	29	15	9.8	7.3	6.2	7.2	4.8
28	4.0	4.0	4.7	3.7	2.8	25	14	9.2	7.3	9.2	6.4	4.8
29	4.2	5.0	4.0	3.4	---	22	13	8.8	6.9	10	6.0	4.8
30	4.1	4.8	3.8	3.7	---	20	12	17	6.6	12	5.6	4.7
31	3.9	---	3.6	3.5	---	19	---	13	---	10	5.5	---
TOTAL	114.8	130.7	144.7	132.5	89.5	1022.9	501	764.5	243.1	219.1	211.1	138.8
MEAN	3.70	4.36	4.67	4.27	3.20	33.0	16.7	24.7	8.10	7.07	6.81	4.63
MAX	4.3	5.2	6.0	5.2	3.9	230	40	127	11	12	9.8	5.5
MIN	2.9	3.1	3.5	3.4	2.4	2.8	11	8.8	6.6	5.1	5.3	4.1
AC-FT	228	259	287	263	178	2030	994	1520	482	435	419	275

CAL YR 1978 TOTAL 3117.8 MEAN 8.54 MAX 190 MIN 2.7 AC-FT 6180
WTR YR 1979 TOTAL 3712.7 MEAN 10.2 MAX 230 MIN 2.4 AC-FT 7360

06799100 NORTH FORK ELKHORN RIVER NEAR PIERCE, NE

LOCATION.--Lat 42°10'44", long 97°29'04", in SW1/4 sec.31, T.26 N., R.1 W., Pierce County, Hydrologic Unit 10220002, on left downstream wingwall of county road bridge, 2.5 mi (4.0 km) southeast of Pierce.

DRAINAGE AREA.--700 mi² (1,810 km²), approximately, of which about 30 mi² (78 km²) is noncontributing.

PERIOD OF RECORD.--August 1960 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,553.07 ft (473.376 m) National Geodetic Vertical Datum of 1929 (U.S. Weather Bureau levels).

REMARKS.--Records good except those for winter period, which are poor.

AVERAGE DISCHARGE.--19 years, 80.2 ft³/s (2.271 m³/s), 58,100 acre-ft/yr (71.6 hm³/yr); median of yearly mean discharges, 64 ft³/s (1.812 m³/s), 46,400 acre-ft/yr (57.2 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,200 ft³/s (430 m³/s) Feb. 19, 1971, gage height, 15.10 ft (4.602 m); minimum daily, 3.8 ft³/s (0.11 m³/s) July 24, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,540 ft³/s (43.6 m³/s) May 10 at 1400, gage height, 12.25 ft (3.734 m), no other peak above base of 870 ft³/s (24.6 m³/s); minimum daily, 18 ft³/s (0.51 m³/s) Oct. 3, 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	24	23	22	20	36	110	74	83	44	58	31
2	19	26	22	23	22	42	109	92	75	43	57	30
3	18	25	19	24	25	40	97	89	70	43	42	30
4	18	24	30	23	21	37	96	79	66	42	36	29
5	19	23	28	21	21	35	93	71	64	42	31	29
6	20	23	27	24	26	42	86	69	61	42	29	129
7	21	22	26	23	23	40	82	67	59	42	26	49
8	22	22	25	22	22	44	81	71	60	42	26	31
9	22	22	27	22	24	47	76	1160	68	40	26	31
10	22	23	30	22	25	40	75	595	76	36	26	32
11	22	22	29	24	24	42	84	394	74	34	26	32
12	22	23	32	25	23	46	107	247	66	30	26	32
13	23	24	29	21	25	50	117	256	62	30	26	34
14	23	22	26	19	30	60	118	174	58	29	26	29
15	25	22	28	20	25	70	98	140	55	33	26	28
16	23	24	27	24	20	90	84	122	55	29	26	28
17	21	24	25	27	22	120	75	110	60	29	26	28
18	25	24	26	26	28	200	73	409	66	28	26	27
19	23	23	28	26	35	350	72	200	68	24	99	27
20	23	21	26	25	35	290	90	120	63	23	62	27
21	23	22	28	27	32	250	93	106	61	21	38	27
22	25	23	29	29	37	500	77	98	55	22	40	26
23	25	23	29	23	32	790	71	92	60	24	43	26
24	25	26	25	21	29	500	68	86	62	29	47	34
25	26	25	27	27	30	300	73	82	60	31	39	26
26	25	23	26	26	40	204	89	79	55	31	36	26
27	25	22	27	24	38	155	89	75	52	30	35	26
28	25	20	27	24	32	141	82	72	50	31	33	26
29	25	25	25	22	---	146	78	69	47	34	31	25
30	25	24	24	23	---	144	75	92	45	60	31	25
31	24	---	24	21	---	128	---	107	---	62	31	---
TOTAL	703	696	824	730	766	4979	2618	5497	1856	1080	1130	980
MEAN	22.7	23.2	26.6	23.5	27.4	161	87.3	177	61.9	34.8	36.5	32.7
MAX	26	26	32	29	40	790	118	1160	83	62	99	129
MIN	18	20	19	19	20	35	68	67	45	21	26	25
AC-FT	1390	1380	1630	1450	1520	9880	5190	10900	3680	2140	2240	1940

CAL YR 1978 TOTAL 22020 MEAN 60.3 MAX 2000 MIN 10 AC-FT 43680
WTR YR 1979 TOTAL 21859 MEAN 59.9 MAX 1160 MIN 18 AC-FT 43360

06799230 UNION CREEK AT MADISON, NE

LOCATION.--Lat 41°49'52", long 97°27'19", in SW1/4SE1/4 sec.32, T.22 N., R.1 W., Madison County, Hydrologic Unit 10220003, on left bank 12 ft (4 m) downstream from bridge on U.S. Highway 81, in Madison.

PERIOD OF RECORD.--October 1978 to September 1979.

GAGE.--Water-stage recorder. Datum of gage is 1,549.70 ft (472.349 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for winter period, which are fair.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 589 ft³/s (16.7 m³/s) Mar. 18, gage height, 12.62 ft (3.847 m); minimum daily, 7.9 ft³/s (0.22 m³/s) Aug. 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.8	10	14	12	14	14	23	34	18	15	13	9.9
2	9.0	10	16	13	14	38	23	48	18	15	13	10
3	9.0	11	16	13	13	75	23	38	18	15	13	9.8
4	9.0	10	15	13	13	19	23	30	17	24	12	9.2
5	9.3	10	15	13	13	47	22	27	17	20	12	9.2
6	9.3	10	14	13	12	77	21	26	16	17	13	9.2
7	9.5	10	14	13	12	112	22	25	16	16	11	8.8
8	9.8	11	14	12	12	95	22	25	18	17	9.0	8.8
9	10	11	14	12	12	68	22	27	24	16	8.4	10
10	10	12	14	12	12	24	22	205	21	15	8.6	12
11	9.2	11	14	12	12	29	32	161	18	15	9.5	10
12	10	12	14	11	12	91	39	39	17	14	8.5	14
13	10	12	14	12	12	267	31	29	16	14	9.4	15
14	10	11	14	13	13	429	27	26	15	14	7.9	11
15	10	11	14	13	12	282	26	24	15	14	9.6	11
16	9.8	12	14	13	13	179	25	22	15	13	11	11
17	9.8	13	13	12	13	341	25	22	18	13	11	10
18	9.8	13	14	13	12	464	25	27	18	13	12	9.9
19	9.3	12	14	14	12	279	26	26	17	11	13	9.9
20	9.3	12	15	13	13	65	49	24	16	11	13	10
21	9.8	12	14	13	13	41	47	23	15	11	17	10
22	10	12	14	14	14	332	32	22	16	9.9	12	10
23	11	13	15	14	13	297	27	21	21	8.7	12	9.8
24	10	13	14	13	13	51	26	20	18	27	11	9.9
25	10	13	14	14	14	37	30	20	17	17	12	9.7
26	10	13	13	13	14	29	28	20	16	36	13	9.5
27	10	12	13	13	15	26	27	19	16	22	12	9.3
28	10	11	14	13	14	26	28	20	16	18	11	9.6
29	12	13	14	14	---	25	29	20	15	17	11	9.5
30	9.8	14	13	14	---	24	28	21	15	16	11	10
31	9.9	---	13	14	---	23	---	19	---	13	10	---
TOTAL	303.4	350	437	401	361	3906	830	1110	513	497.6	349.9	306.0
MEAN	9.79	11.7	14.1	12.9	12.9	126	27.7	35.8	17.1	16.1	11.3	10.2
MAX	12	14	16	14	15	464	49	205	24	36	17	15
MIN	8.8	10	13	11	12	14	21	19	15	8.7	7.9	8.8
AC-FT	602	694	867	795	716	7750	1650	2200	1020	987	694	607

WTR YR 1979 TOTAL 9364.9 MEAN 25.7 MAX 464 MIN 7.9 AC-FT 18580

06799350 ELKHORN RIVER AT WEST POINT, NE

LOCATION.--Lat 41°50'22", long 96°43'38", in SW1/4NW1/4 sec.34, T.22 N., R.6 E., Cuming county, Hydrologic Unit 10220003, on right bank near right downstream wingwall of bridge on State Highway 32 and 1 mi (2 km) west of West Point. Prior to May 18 at site on left bank 50 ft (15 m) upstream from bridge.

DRAINAGE AREA.--5,100 mi² (13,200 km²), approximately, of which about 4,100 mi² (10,600 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--October 1972 to current year. March 1960 to September 1972 (no winter records 1960-68) in files of Corps of Engineers. Gage-height records collected since 1940 are in reports of U.S. Weather Bureau.

GAGE.--Water-stage recorder. Datum of gage is 1,291.26 ft (393.576 m) National Geodetic Vertical Datum of 1929. Prior to May 18, 1976 at site on left bank 50 ft (15 m) upstream from bridge at same datum.

REMARKS.--Records fair except those for winter period, which are poor. Some small diversions above station for irrigation.

AVERAGE DISCHARGE.--11 years (1968-78), 710 ft³/s (20.11 m³/s) (514,400 acre-ft/yr (0.634 km³/yr)).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge estimated, 33,000 ft³/s (935 m³/s) June 25, 1969, gage height, 13.21 ft (4.026 m); maximum gage height, 16.09 ft (4.904 m) Mar. 18, 1978, ice jam; minimum daily, 41 ft³/s (1.16 m³/s) Aug. 31, 1976.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 31, 1960 reached a stage of 19.09 ft (5.819 m), backwater from ice; observed by Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 4,500 ft³/s (127 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Mar. 17	1530	ice jam		*12.34	3.761	Mar. 22	2300	9410	266	9.20	2.804
Mar. 18	----	*10200	289	ice jam		May 10	2245	6670	189	8.61	2.624

Minimum daily discharge, 140 ft³/s (3.96 m³/s) Nov. 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	185	269	280	295	215	250	963	1070	828	521	801	386
2	186	271	270	285	210	265	928	1300	804	477	690	390
3	184	274	265	260	210	300	1000	1330	729	463	584	376
4	189	275	300	240	205	400	972	1040	682	450	535	348
5	189	267	330	230	200	600	963	923	635	500	479	301
6	190	253	300	215	200	620	851	854	600	532	436	288
7	195	255	290	205	200	720	831	811	568	557	396	306
8	205	260	220	200	195	900	797	787	535	522	365	371
9	211	270	190	195	190	1100	747	899	631	519	341	357
10	218	272	220	190	190	1250	780	3750	676	498	323	348
11	222	272	270	195	185	1200	823	5510	662	481	334	338
12	224	289	310	200	185	1400	928	2460	625	443	492	338
13	221	308	330	200	185	1700	1020	1490	589	419	384	366
14	235	315	330	195	180	2200	1380	1270	547	405	340	362
15	239	316	320	195	180	3000	1300	1020	518	397	316	329
16	232	319	320	190	180	2900	1270	963	507	375	310	343
17	230	324	325	190	185	4900	1120	1050	527	374	322	343
18	236	330	330	200	190	7000	1170	1470	699	362	325	338
19	239	275	340	210	195	8000	1170	1930	756	344	344	324
20	247	230	325	215	200	5700	1220	1070	1600	329	384	334
21	248	180	330	220	200	3220	1320	972	750	313	1690	319
22	259	170	330	220	205	4630	1210	972	624	306	1060	315
23	266	160	315	220	210	7060	1120	1120	646	305	797	301
24	267	155	310	215	215	3950	1110	1060	639	333	600	292
25	265	150	320	215	220	2720	1160	995	613	354	533	274
26	265	145	310	220	225	2150	1220	955	617	352	622	267
27	268	145	300	220	230	1830	1230	890	594	336	566	257
28	270	140	300	225	240	1540	1180	828	552	383	520	246
29	267	150	290	225	---	1300	1160	781	531	443	445	232
30	266	180	290	220	---	1200	1090	793	544	515	381	230
31	264	---	300	220	---	1040	---	848	---	595	366	---
TOTAL	7182	7219	9260	6725	5625	75045	32033	41211	19828	13203	16081	9619
MEAN	232	241	299	217	201	2421	1068	1329	661	426	519	321
MAX	270	330	340	295	240	8000	1380	5510	1600	595	1690	390
MIN	184	140	190	190	180	250	747	781	507	305	310	230
AC-FT	14250	14320	18370	13340	11160	148900	63540	81740	39330	26190	31900	19080

CAL YR 1978 TOTAL 306628 MEAN 840 MAX 22700 MIN 140 AC-FT 608200
WTR YR 1979 TOTAL 243031 MEAN 666 MAX 8000 MIN 140 AC-FT 482100

06799385 PEBBLE CREEK AT SCRIBNER, NE

LOCATION.--Lat 41°39'38", long 96°41'00", in NW1/4SE1/4 sec.36, T.20 N., R.6 E., Dodge County, Hydrologic Unit 1022003, on right bank 12 ft (4 m) downstream from bridge on county road, 1 mi (2 km) southeast of Scribner and 3 mi (5 km) upstream from mouth.

DRAINAGE AREA.--203.52 mi² (527.12 km²).

PERIOD OF RECORD.--October 1978 to September 1979.

GAGE.--Water-stage recorder. Altitude of gage is 1,235 ft (376.4 m) from topographic map.

REMARKS.--Records fair except for winter period, which contains period of missing record, Mar. 11-19, 22, which are poor.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,700 ft³/s (76.5 m³/s) Mar. 13, gage height, 15.64 ft (4.767 m) from highwater mark, backwater from ice; minimum daily, 3.8 ft³/s (0.11 m³/s), Sept. 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.7	4.7	5.2	5.6	5.0	10	21	23	11	10	7.6	7.9
2	4.7	4.8	5.0	5.2	5.0	10	23	73	10	10	6.0	21
3	4.5	5.3	4.8	4.9	5.2	11	23	35	9.2	10	5.8	8.2
4	4.7	5.6	4.5	4.9	5.2	11	22	23	8.9	10	5.4	5.8
5	5.2	5.1	4.5	4.9	5.2	11	21	20	8.9	9.9	5.0	5.2
6	5.3	4.7	4.6	4.8	5.2	12	19	18	8.8	9.8	4.7	4.7
7	5.7	4.9	4.7	4.8	5.2	12	18	17	8.3	11	4.5	5.8
8	5.4	5.4	4.9	4.8	5.4	12	19	15	8.1	9.8	4.3	5.2
9	5.5	5.5	5.2	4.8	5.6	13	18	85	13	9.0	5.4	5.0
10	5.8	5.6	5.6	4.8	5.8	150	16	48	15	8.4	8.4	5.6
11	6.1	5.6	5.8	4.9	6.0	700	17	42	13	8.0	7.9	5.2
12	5.8	5.8	6.2	4.9	6.2	2500	20	26	10	7.8	5.4	6.1
13	5.4	6.6	6.8	4.8	6.4	1600	19	22	9.0	7.6	5.2	6.8
14	5.6	6.3	7.4	4.8	6.2	1000	16	20	8.5	7.4	3.9	6.3
15	5.7	6.1	7.8	4.8	6.0	650	15	18	8.1	9.4	4.1	6.6
16	5.3	5.2	8.4	4.8	5.6	400	14	17	8.8	9.1	5.6	4.1
17	5.9	5.8	9.0	4.9	6.0	280	14	16	9.0	8.8	5.4	4.1
18	5.9	5.4	9.6	4.9	6.6	450	13	18	42	7.3	6.6	4.3
19	5.5	5.2	9.6	5.0	7.0	200	14	23	55	6.3	9.6	4.5
20	4.6	5.0	9.6	5.2	7.4	84	17	22	513	6.2	9.9	4.1
21	4.8	5.2	9.6	5.2	7.4	52	18	16	53	5.8	69	4.3
22	6.2	5.2	9.2	5.2	7.4	130	15	14	29	5.3	121	4.3
23	6.6	5.2	9.0	5.2	7.2	240	14	13	285	5.0	17	5.4
24	6.6	5.4	8.6	5.0	7.0	56	14	12	87	5.6	8.7	3.9
25	5.3	5.6	8.0	5.0	7.8	46	16	12	18	7.1	7.9	3.8
26	5.1	5.4	8.0	4.9	7.8	38	17	11	14	6.6	24	3.9
27	5.1	5.2	8.0	4.9	9.0	30	15	11	13	5.8	53	4.9
28	4.7	4.9	8.2	4.9	11	29	14	11	12	5.3	15	4.6
29	4.9	5.2	8.0	4.9	---	30	14	11	11	7.0	9.0	5.9
30	4.9	5.6	7.8	4.9	---	26	14	10	11	13	6.6	7.1
31	4.7	---	6.4	5.0	---	23	---	11	---	12	5.6	---
TOTAL	166.2	161.5	220.0	153.6	180.4	8816	510	713	1270.6	253.5	457.5	175.6
MEAN	5.36	5.38	7.10	4.95	6.44	284	17.0	23.0	42.4	8.18	14.8	5.85
MAX	6.6	6.6	9.6	5.6	11	2500	23	85	513	13	121	21
MIN	4.5	4.7	4.5	4.8	5.0	10	13	10	8.1	5.0	3.9	3.8
AC-FT	330	320	436	305	358	17490	1010	1410	2520	503	907	348

WTR YR 1979 TOTAL 13077.9 MEAN 35.8 MAX 2500 MIN 3.8 AC-FT 25940

06799450 LOGAN CREEK AT PENDER, NE

LOCATION.--Lat 42°06'40", long 96°42'00", in NW1/4 sec.26, T.25 N., R.6 E., Thurston County, Hydrologic Unit 10220004, on right bank 200 ft (61 m) downstream from bridge on Nebraska State Highway 94 at Pender and 0.7 mi (1.1 km) downstream from Rattlesnake Creek.

DRAINAGE AREA.--731 mi² (1,890 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1965 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,300.96 ft (396.533 m) National Geodetic Vertical Datum of 1929. Prior to Apr. 23, 1966, nonrecording gage at same site and datum.

REMARKS.--Records fair except those for winter period, which are poor.

AVERAGE DISCHARGE.--14 years, 126 ft³/s (3.568 m³/s), 91,290 acre-ft/yr (0.113 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 36,900 ft³/s (1,050 m³/s) Feb. 19, 1971, gage height, 23.11 ft (7.044 m); minimum daily, 12 ft³/s (0.34 m³/s) Aug. 11, 1976.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,500 ft³/s (42.5 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Mar. 17	2315	3950	112	a*14.53	4.429
Mar. 22	2030	3740	106	9.82	2.993
May 10	1615	3750	106	9.83	2.996
Aug. 19	1300	*7010	199	12.55	0.777

a Ice jam.

Minimum daily discharge, 18 ft³/s (0.51 m³/s) Feb. 16, 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36	38	37	22	28	26	154	94	110	90	65	80
2	36	40	33	24	35	30	150	139	98	84	58	77
3	35	39	30	26	38	35	140	128	94	82	53	74
4	37	38	36	27	36	34	134	107	89	79	51	71
5	37	37	46	25	35	33	129	99	87	81	45	69
6	40	36	43	29	40	38	121	93	85	80	44	117
7	43	37	43	28	30	37	117	88	81	80	43	186
8	44	39	35	29	32	36	115	92	81	80	41	88
9	45	38	28	32	30	38	113	115	101	78	57	74
10	45	37	35	30	35	35	109	1680	109	76	49	68
11	43	35	36	29	37	40	113	762	108	73	44	65
12	42	38	38	35	33	80	130	285	98	70	44	69
13	43	41	35	32	35	100	131	236	91	65	43	78
14	44	37	36	25	38	300	115	201	88	61	48	76
15	45	39	37	29	33	400	107	169	83	60	46	72
16	41	38	36	30	18	500	102	151	84	58	48	67
17	43	40	38	40	24	1500	99	137	163	56	47	64
18	42	35	36	38	27	3500	98	305	296	53	45	61
19	41	32	34	45	32	2000	97	227	214	48	3130	60
20	48	28	32	40	30	591	98	175	394	47	1170	59
21	44	29	37	41	28	313	112	141	188	44	583	58
22	42	31	35	43	30	1820	107	123	117	44	225	58
23	42	32	29	41	27	1810	99	114	112	47	146	58
24	43	35	30	34	18	341	92	106	115	50	119	56
25	40	38	32	36	20	256	97	102	109	48	104	56
26	40	37	33	45	21	230	115	99	97	45	115	55
27	41	32	30	45	22	201	109	97	91	43	137	54
28	41	30	37	35	24	185	101	95	108	46	135	53
29	42	34	35	32	---	200	96	93	130	49	103	53
30	40	40	24	35	---	197	92	94	100	52	90	53
31	38	---	24	33	---	180	---	144	---	66	82	---
TOTAL	1283	1080	1070	1035	836	15086	3392	6491	3721	1935	7010	2129
MEAN	41.4	36.0	34.5	33.4	29.9	487	113	209	124	62.4	226	71.0
MAX	48	41	46	45	40	3500	154	1680	394	90	3130	186
MIN	35	28	24	22	18	26	92	88	81	43	41	53
AC-FT	2540	2140	2120	2050	1660	29920	6730	12870	7380	3840	13900	4220

CAL YR 1978 TOTAL 40227 MEAN 110 MAX 6970 MIN 24 AC-FT 79790
WTR YR 1979 TOTAL 45068 MEAN 123 MAX 3500 MIN 18 AC-FT 89390

06799450 LOGAN CREEK AT PENDER, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964-68, 1973 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (JTU) (00070)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT										
10...	1440	43	770	7.8	17.0	10	11.0	2.2	K123	140
NOV										
06...	1400	36	740	8.2	9.5	10	13.9	4.0	400	308
DEC										
05...	1415	46	820	7.4	.0	10	11.1	2.6	107	1000
JAN										
02...	1520	24	945	7.7	.0	9	--	3.6	K33	392
FEB										
27...	1600	22	770	7.8	.0	8	8.8	1.0	310	88
MAR										
23...	1200	1540	366	7.5	1.0	370	10.6	<11	22000	K200000
APR										
11...	1230	147	819	8.1	5.0	40	9.8	2.6	K140	7000
30...	1400	89	846	7.9	13.5	20	11.9	2.6	K10	200
MAY										
11...	1800	649	418	7.8	6.0	750	8.7	12	K360000	K850000
JUL										
05...	1145	81	800	8.3	20.0	40	8.8	2.7	590	400
18...	1230	50	770	8.8	24.0	15	9.2	4.2	180	110
AUG										
15...	1245	47	735	7.9	17.0	20	9.0	3.6	1700	900
SEP										
27...	1215	56	710	8.3	19.0	15	9.8	3.0	320	480

K Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)
OCT										
10...	13	580	.68	58.0	.68	.05	.84	.89	1.6	.17
NOV										
06...	15	426	.58	41.4	.72	.06	.33	.39	1.1	.11
DEC										
05...	15	554	.75	68.8	1.6	.16	.73	.89	2.5	.17
JAN										
02...	16	657	.89	42.6	2.3	.12	.50	.62	2.9	.32
FEB										
27...	19	--	.68	29.9	1.6	.70	.22	.92	2.5	.27
MAR										
23...	9.8	--	.36	1090	2.7	2.6	6.9	9.5	12	2.6
APR										
11...	9.6	576	.78	229	2.1	.37	.50	.87	3.0	.36
30...	13	565	.77	135	3.9	.27	.39	.66	4.6	.26
MAY										
11...	6.2	--	.36	463	2.9	.71	7.8	8.5	11	2.0
JUL										
05...	8.9	550	.75	120	1.7	.07	.36	.43	2.1	.35
18...	8.9	510	.69	68.9	1.0	.01	.20	.21	1.2	.24
AUG										
15...	13	--	.65	61.9	1.2	.03	.47	.50	1.7	.25
SEP										
27...	9.5	526	.72	79.5	.92	.06	.57	.63	1.6	.21

DATE	TIME	COLOR (PLAT-INUM-COBALT UNITS) (00080)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE (MG/L AS HCO3) (00440)	CAR-BONATE (MG/L AS CO3) (00445)
NOV												
06...	1400	--	--	380	110	110	26	26	.6	6.2	--	--
FEB												
27...	1600	--	--	380	78	110	25	28	.6	6.1	--	--
MAR												
23...	1200	200	230	150	3	44	9.9	10	.4	21	180	0
APR												
30...	1400	--	--	400	110	110	30	30	.7	7.5	--	--
MAY												
11...	1400	25	200	180	61	54	12	13	.4	13	150	0
AUG												
15...	1245	--	--	360	67	100	26	27	.6	6.4	--	--

06799450 LOGAN CREEK AT PENDER, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	ALKALINITY (MG/L AS CACO3) (00410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N) (00607)	NITROGEN,NH4 + ORG. SUSP. TOTAL (MG/L AS N) (00624)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOSPHORUS, DISSOLVED (MG/L AS P) (00666)	ARSENIC TOTAL (UG/L AS AS) (01002)
NOV 06...	270	130	.2	20	499	.66	--	--	--	--	.06	--
FEB 27...	300	110	.3	24	503	--	--	--	--	--	.24	--
MAR 23...	150	55	.2	7.4	262	2.7	2.6	--	9.2	--	.74	14
APR 30...	290	160	.3	15	546	1.3	--	--	--	--	.17	--
MAY 11...	120	70	.3	8.8	264	2.6	.57	1.1	6.8	1.7	.31	17
AUG 15...	290	110	.3	23	480	--	--	--	--	--	.01	--

DATE	ARSENIC SUSPENDED TOTAL (UG/L AS AS) (01001)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BARIUM, DISSOLVED (UG/L AS BA) (01005)	BORON, DISSOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD) (01027)	CADMIUM SUSPENDED RECOVERABLE (UG/L AS CD) (01026)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) (01034)	CHROMIUM, SUSPENDED RECOV. (UG/L AS CR) (01031)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COBALT, TOTAL RECOVERABLE (UG/L AS CO) (01037)	COBALT, SUSPENDED RECOVERABLE (UG/L AS CO) (01036)
NOV 06...	--	3	0	90	--	--	1	--	--	0	--	--
FEB 27...	--	--	--	90	--	--	--	--	--	--	--	--
MAR 23...	8	6	--	80	0	0	0	30	10	20	19	19
APR 30...	--	3	100	100	--	--	0	--	--	10	--	--
MAY 11...	15	2	--	50	--	--	--	50	50	0	23	23
AUG 15...	--	--	--	100	--	--	--	--	--	--	--	--

DATE	COBALT, DISSOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOVERABLE (UG/L AS CU) (01042)	COPPER, SUSPENDED RECOVERABLE (UG/L AS CU) (01041)	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOVERABLE (UG/L AS FE) (01045)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE) (01044)	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOVERABLE (UG/L AS PB) (01051)	LEAD, SUSPENDED RECOVERABLE (UG/L AS PB) (01050)	LEAD, DISSOLVED (UG/L AS PB) (01049)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) (01055)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN) (01054)
NOV 06...	--	--	--	8	--	--	20	--	--	--	--	--
FEB 27...	--	--	--	--	--	--	10	--	--	--	--	--
MAR 23...	0	50	50	0	40000	40000	280	52	51	1	2500	2200
APR 30...	--	--	--	3	--	--	50	--	--	3	--	--
MAY 11...	0	67	66	1	56000	56000	140	--	--	--	3100	2800
AUG 15...	--	--	--	--	--	--	20	--	--	--	--	--

DATE	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	MERCURY SUSPENDED RECOVERABLE (UG/L AS HG) (71895)	MERCURY DISSOLVED (UG/L AS HG) (71890)	SELENIUM, TOTAL (UG/L AS SE) (01147)	SELENIUM, SUSPENDED TOTAL (UG/L AS SE) (01146)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	SILVER, DISSOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	ZINC, SUSPENDED RECOVERABLE (UG/L AS ZN) (01091)	ZINC, DISSOLVED (UG/L AS ZN) (01090)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
NOV 06...	160	--	--	.0	--	--	13	0	--	--	0	--
FEB 27...	240	--	--	--	--	--	--	--	--	--	--	--
MAR 23...	270	.1	.0	.2	10	1	9	0	190	180	10	38
APR 30...	120	--	--	.0	--	--	15	0	--	--	20	--
MAY 11...	330	.5	.0	.5	10	0	10	0	230	210	20	77
AUG 15...	50	--	--	--	--	--	--	--	--	--	--	--

06799450 LOGAN CREEK AT PENDER, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	PERTHANE TOTAL (UG/L) (39034)	PCB, TOTAL (UG/L) (39516)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG) (39519)	ALDRIN, TOTAL (UG/L) (39330)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG) (39333)	CHLORDANE, TOTAL (UG/L) (39350)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG) (39351)	DDD, TOTAL (UG/L) (39360)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG) (39363)	DDE, TOTAL (UG/L) (39365)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG) (39368)
NOV 06...	1400	--	--	0	--	.0	--	0	--	.0	--	.1
MAR 23...	1200	.00	.0	--	.00	--	.0	--	.00	--	.00	--
APR 30...	1400	--	--	0	--	.7	--	0	--	.0	--	.1
MAY 11...	1400	.00	.0	--	.01	--	.0	--	.00	--	.00	--
SEP 05...	1340	--	--	0	--	.0	--	0	--	.0	--	.0

DATE	DDT, TOTAL (UG/L) (39370)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG) (39373)	DIAZINON, TOTAL (UG/L) (39570)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG) (39571)	DIELDRIN TOTAL (UG/L) (39380)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG) (39383)	ENDOSULFAN, TOTAL (UG/L) (39388)	ENDRIN, TOTAL (UG/L) (39390)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG) (39393)	ETHION, TOTAL (UG/L) (39398)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG) (39399)	HEPTACHLOR, TOTAL (UG/L) (39410)
NOV 06...	--	.0	--	.0	--	.1	--	--	.0	--	.0	--
MAR 23...	.00	--	.00	--	.01	--	.00	.00	--	.00	--	.00
APR 30...	--	.1	--	.0	--	.2	--	--	.0	--	.0	--
MAY 11...	.00	--	.01	--	.01	--	.00	.00	--	.00	--	.00
SEP 05...	--	.0	--	--	--	.0	--	--	.0	--	--	--

DATE	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG) (39413)	HEPTACHLOR EPOXIDE TOTAL (UG/L) (39420)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG) (39423)	LINDANE TOTAL (UG/L) (39340)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG) (39343)	MALATHION, TOTAL (UG/L) (39530)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG) (39531)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG) (39481)	METHYL PARATHION, TOTAL (UG/L) (39600)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG) (39601)	METHYL TRITHION, TOTAL (UG/L) (39790)
NOV 06...	.0	--	.0	--	.0	--	.0	.0	--	.0	--
MAR 23...	--	.00	--	.00	--	.00	--	--	.00	--	.00
APR 30...	.0	--	.0	--	.0	--	.0	.0	--	.0	--
MAY 11...	--	.00	--	.00	--	.00	--	--	.00	--	.00
SEP 05...	.0	--	.0	--	.0	--	--	.0	--	--	--

DATE	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG) (39791)	PARATHION, TOTAL (UG/L) (39540)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG) (39541)	TOXAPHENE, TOTAL (UG/L) (39400)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG) (39403)	TOTAL TRITHION (UG/L) (39786)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG) (39787)	2,4-D, TOTAL (UG/L) (39730)	2,4,5-T TOTAL (UG/L) (39740)	MIREX, TOTAL (UG/L) (39755)	SILVEX, TOTAL (UG/L) (39760)
NOV 06...	.0	--	.0	--	0	--	.0	--	--	--	--
MAR 23...	--	.00	--	0	--	.00	--	.42	.01	.00	.00
APR 30...	.0	--	.0	--	0	--	.0	--	--	--	--
MAY 11...	--	.00	--	0	--	.00	--	.96	.01	.00	.00
SEP 05...	--	--	--	--	0	--	--	--	--	--	--

06799450 LOGAN CREEK AT PENDER, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)
MAR							
11...	1300	689	6.0	3180	5570	44	51
23...	1200	1540	1.0	3760	15700	34	39
23...	1640	930	2.5	2820	7080	20	27
24...	1230	343	2.0	1000	926	--	--
JUL							
05...	1110	81	20.0	[illegible]	33	75	--

DATE	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70344)	SED. SUSP. FALL DIAM. % FINER THAN .500 MM (70345)	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM (70346)
MAR						
11...	73	99	100	--	--	--
23...	53	84	92	92	96	99
23...	52	90	96	98	100	--
24...	--	--	--	--	--	--
JUL						
05...	--	--	--	--	--	--

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	NUMBER OF SAM-PLING POINTS (00063)	BED MAT. FALL DIAM. % FINER THAN .062 MM (80158)	BED MAT. FALL DIAM. % FINER THAN .125 MM (80159)	BED MAT. FALL DIAM. % FINER THAN .250 MM (80160)	BED MAT. FALL DIAM. % FINER THAN .500 MM (80161)	BED MAT. FALL DIAM. % FINER THAN 1.00 MM (80162)	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM (80171)	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM (80172)
MAR												
23...	1200	1540	3	--	0	9	72	93	98	99	100	--
23...	1600	930	3	--	0	9	75	93	98	99	99	100
24...	1230	343	10	--	0	6	86	91	97	99	100	--
MAY												
11...	1300	689	4	0	1	9	72	98	99	100	--	--
JUL												
05...	1110	81	8	--	0	5	68	99	99	100	--	--

06799500 LOGAN CREEK NEAR UEHLING, NE

LOCATION.--Lat 41°42'50", long 96°31'15", on south line of SE1/4SE1/4 sec.9, T.20 N., R.8 E., Dodge County, Hydrologic Unit 10220004, near right bank on downstream side of bridge on county road, 2 mi (3 km) southwest of Uehling and 8 mi (13 km) upstream from mouth.

DRAINAGE AREA.--1,030 mi² (2,670 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1941 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,208.73 ft (368.421 m) National Geodetic Vertical Datum of 1929. See WSP 1918 for history of changes prior to July 15, 1963.

REMARKS.--Records good except those for winter period, which are poor.

AVERAGE DISCHARGE.--38 years, 177 ft³/s (5.013 m³/s), 128,200 acre-ft/yr (0.158 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 25,200 ft³/s (714 m³/s) Feb. 20, 1971, gage height, 20.15 ft (6.142 m), from floodmark; maximum gage height, 20.15 ft (6.142 m), Mar. 27, 1962, present datum, Feb. 20, 1971; minimum daily discharge, 6.1 ft³/s (0.17 m³/s) July 26, 1976.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 5, 1940, reached a stage of 20.6 ft (6.28 m), present datum, from floodmarks, discharge, 22,200 ft³/s (629 m³/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges, above base of 1500 ft³/s (42.5 m³/s) and maximum (*):

		Discharge		Gage height				Discharge		Gage height	
Date	Time	(ft³/s)	(m³/s)	(ft)	(m)	Date	Time	(ft³/s)	(m³/s)	(ft)	(m)
Mar. 18	0900	*7000	198	a15.00	4.572	May 11	0045	2490	70.5	7.74	2.359
Mar. 23	0330	3460	98.0	8.96	2.731	Aug. 19	2230	3920	111	9.68	2.950

a Backwater from ice.

Minimum daily discharge, 25 ft³/s (0.71 m³/s) Feb. 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	48	49	40	38	33	35	254	131	175	133	82	111
2	49	49	37	41	40	45	235	180	142	120	81	94
3	49	48	36	44	38	48	222	204	129	112	77	89
4	48	48	32	45	40	45	216	170	121	106	71	85
5	48	47	37	40	38	42	201	148	116	106	69	82
6	50	46	41	45	45	50	185	137	111	105	61	87
7	50	46	47	45	40	60	178	129	111	104	49	150
8	51	46	44	47	38	80	166	122	109	102	45	172
9	54	46	42	50	35	120	163	149	123	99	41	103
10	56	47	45	45	40	160	158	420	143	97	61	88
11	55	46	50	48	42	200	163	1470	140	92	71	82
12	57	46	47	56	40	300	190	584	135	86	56	81
13	55	49	45	50	43	400	195	331	121	80	49	91
14	57	49	46	40	47	500	181	282	111	75	50	94
15	55	46	48	35	40	800	160	235	103	79	55	91
16	55	48	45	40	25	1000	145	205	106	75	63	87
17	55	50	44	45	30	3000	139	192	120	68	68	82
18	53	50	46	43	40	5160	134	229	370	62	73	79
19	53	40	45	50	50	3860	132	411	338	62	908	77
20	55	35	43	45	45	1170	144	263	349	58	1850	76
21	56	38	40	52	40	586	147	212	453	53	1240	75
22	64	40	42	50	45	929	150	178	217	52	470	73
23	63	40	40	45	40	2670	139	155	167	56	212	73
24	58	45	36	40	28	881	132	145	155	67	144	73
25	58	40	40	45	30	522	135	136	155	80	132	73
26	57	40	45	47	32	439	152	133	144	68	152	72
27	57	38	40	42	33	363	156	127	130	63	186	71
28	54	35	50	38	31	312	142	124	125	61	171	68
29	53	40	45	35	---	301	136	155	143	63	156	66
30	52	44	37	37	---	309	128	120	163	72	125	67
31	51	---	35	35	---	289	---	127	---	70	108	---
TOTAL	1676	1331	1310	1358	1068	24676	4978	7604	5025	2526	6976	2612
MEAN	54.1	44.4	42.3	43.8	38.1	796	166	245	168	81.5	225	87.1
MAX	64	50	50	56	50	5160	254	1470	453	133	1850	172
MIN	48	35	32	35	25	35	128	120	103	52	41	66
AC-FT	3320	2640	2600	2690	2120	48940	9870	15080	9970	5010	13840	5180

CAL YR 1978 TOTAL 64410 MEAN 176 MAX 9600 MIN 21 AC-FT 127800
WTR YR 1979 TOTAL 61140 MEAN 168 MAX 5160 MIN 25 AC-FT 121300

06799500 LOGAN CREEK NEAR UEHLING, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1968-1971, 1974-1979.

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	TEMPERATURE (DEG C) (00010)
OCT				
12...	1415	56	657	11.0
NOV				
06...	1100	47	700	8.5
DEC				
05...	1130	37	485	.5
JAN				
02...	1345	41	893	.0
FEB				
27...	1110	33	785	.5
JUL				
06...	1400	106	778	19.0
AUG				
13...	1400	48	611	23.0
SEP				
28...	1100	68	669	--

06800000 MAPLE CREEK NEAR NICKERSON, NE

LOCATION.--Lat 41°32'44", long 96°30'09", in NE1/4SW1/4 sec.10, T.18 N., R.8 E., Dodge County, Hydrologic Unit 10220003, on right bank 120 ft (37 m) upstream from bridge on U.S. Highways 77 and 275, 1.5 mi (2.4 km) northwest of Nickerson, and 4 mi (6 km) upstream from mouth.

DRAINAGE AREA.--450 mi² (1,170 km²), approximately.

PERIOD OF RECORD.--October 1951 to current year.

REVISED RECORDS.--WSP 1630: 1957-58.

GAGE.--Water-stage recorder. Datum of gage is 1,194.56 ft (364.102 m) National Geodetic Vertical Datum of 1929. Prior to July 28, 1960, nonrecording gage at site 120 ft (37 m) downstream at present datum.

REMARKS.--Records fair except those for winter period, which are poor.

AVERAGE DISCHARGE.--28 years, 56.7 ft³/s (1.606 m³/s), 41,080 acre-ft/yr (50.7 hm³/yr); median of yearly mean discharges, 50 ft³/s (1.416 m³/s), 36,200 acre-ft/yr (44.6 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,800 ft³/s (306 m³/s) June 21, 1960, gage height, 14.67 ft (4.471 m); maximum gage height, 16.10 ft (4.907 m) Feb. 19, 1971, from floodmark, backwater from ice; minimum daily discharge, 0.1 ft³/s (0.003 m³/s) Jan. 15, 16, 1956, Aug. 1, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known since 1944, 16.28 ft (4.962 m) June 11, 1944, from floodmarks, discharge, 35,000 ft³/s (991 m³/s), from indirect measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 800 ft³/s (22.7 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Mar. 14	0500	2170	61.5	a*15.26	4.651	Mar. 23	0230	1800	51.0	10.82	3.298
Mar. 17	0630	1720	48.7	a11.13	3.392						

a Backwater from ice.

Minimum daily discharge, 0.23 ft³/s (0.007 m³/s), Aug. 20, Sept. 18-21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.0	.89	.50	.70	.50	.60	58	12	6.2	7.6	5.0	.63
2	1.0	.89	.50	.70	.50	.60	56	38	7.3	5.4	1.5	.53
3	1.0	1.7	.50	.60	.50	.70	55	101	6.6	4.2	.90	.53
4	1.0	1.0	.50	.60	.50	.60	53	46	5.7	3.5	.80	.53
5	1.0	.75	.60	.60	.50	.70	47	27	5.2	3.7	.70	.43
6	1.0	1.2	.60	.60	.50	1.4	41	22	4.0	4.5	.60	.53
7	1.1	.75	.50	.60	.50	3.0	34	20	2.7	5.8	.50	.29
8	1.2	.75	.50	.60	.50	5.0	33	17	2.4	6.2	.40	.29
9	1.1	.75	.50	.60	.50	10	33	69	2.2	6.2	.40	.29
10	1.0	.75	.50	.60	.50	20	30	38	2.0	6.1	.70	.29
11	1.0	.89	.50	.70	.50	50	30	134	1.8	5.5	.60	.29
12	.89	.89	.60	.60	.50	200	34	63	1.6	4.0	.40	.43
13	1.0	1.4	.70	.60	.60	900	37	38	8.1	2.6	.35	.43
14	1.2	1.0	.70	.60	.60	2000	32	30	5.3	2.1	.25	.35
15	1.0	.89	.80	.60	.60	1400	24	24	2.4	4.8	.43	.35
16	.89	1.0	.70	.60	.60	760	18	22	1.8	2.4	.43	.35
17	1.0	.90	.70	.60	.50	1250	16	20	1.7	1.7	.35	.25
18	.89	.80	.70	.60	.50	1510	14	20	2.8	1.6	.25	.23
19	1.0	.80	.70	.70	.60	1140	13	19	15	1.6	.25	.23
20	1.0	.80	.70	.70	.60	253	19	33	246	1.4	.23	.23
21	.63	.80	.70	.70	.60	192	25	28	69	1.2	.43	.23
22	1.2	.90	.70	.70	.60	404	45	19	21	1.2	160	.25
23	1.2	.90	.60	.70	.60	1010	22	14	25	1.7	32	.35
24	1.0	.80	.60	.70	.60	216	18	12	87	2.2	8.6	.75
25	1.0	.70	.60	.60	.60	170	18	11	24	1.0	3.7	.53
26	1.0	.60	.60	.60	.60	150	18	9.7	15	1.2	3.9	.53
27	1.0	.60	.60	.60	.60	136	19	9.2	10	1.7	62	.75
28	1.2	.50	.70	.60	.60	116	17	9.1	11	1.0	21	.43
29	1.2	.60	.70	.60	---	124	16	7.5	11	1.3	5.4	.53
30	1.2	.50	.70	.60	---	96	12	6.5	11	2.1	1.0	.35
31	1.2	---	.70	.50	---	74	---	6.2	---	6.1	.53	---
TOTAL	32.10	25.70	19.20	19.40	15.40	12193.60	887	925.2	614.8	101.6	313.60	12.18
MEAN	1.04	.86	.62	.63	.55	393	29.6	29.8	20.5	3.28	10.1	.41
MAX	1.2	1.7	.80	.70	.60	2000	58	134	246	7.6	160	.75
MIN	.63	.50	.50	.50	.50	.60	12	6.2	1.6	1.0	.23	.23
AC-FT	64	51	38	38	31	24190	1760	1840	1220	202	622	24

CAL YR 1978 TOTAL 19017.28 MEAN 52.1 MAX 3800 MIN .16 AC-FT 37720
WTR YR 1979 TOTAL 15159.78 MEAN 41.5 MAX 2000 MIN .23 AC-FT 30070

06800500 ELKHORN RIVER AT WATERLOO, NE
(National stream-quality accounting network station)

LOCATION.--Lat 41°17'25", long 96°17'05", in SW1/4 sec.3, T.15 N., R.10 E., Douglas County, Hydrologic Unit 10220003, on right bank 100 ft (30 m) upstream from bridge at north edge of Waterloo and 3.5 mi (5.6 km) downstream from Rawhide Creek.

DRAINAGE AREA.--6,900 mi² (17,900 km²), approximately, of which about 5,870 mi² (15,200 km²) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1899 to November 1903, May 1911 to September 1915, August 1928 to current year. Published as "at Arlington" 1899-1903, July 1913 to September 1915. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1390: 1914(M), 1915, 1936, 1943(M). WDR NE-74: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,104.73 ft (336.722 m) National Geodetic Vertical Datum of 1929. Oct. 1, 1960 to June 28, 1978 at datum 2.00 ft (0.610 m) higher. See WSP 1918 for history of changes prior to Oct. 1, 1960.

REMARKS.--Records good except those for winter period, which are poor. Some small diversions above station for irrigation.

AVERAGE DISCHARGE.--59 years, 1,123 ft³/s (31.80 m³/s), 813,600 acre-ft/yr (1.00 km³/yr); median of yearly mean discharges, 1,000 ft³/s (28.32 m³/s), 724,500 acre-ft/yr (0.893 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 100,000 ft³/s (2,830 m³/s) June 12, 1944, gage height, 16.6 ft (5.06 m) from floodmark in gage well, site and datum then in use, from rating curve extended above 22,000 ft³/s (623 m³/s) on basis of current-meter measurement of peak flow in main channel and velocity-area studies of overflow section; minimum observed, 50 ft³/s (1.42 m³/s) Nov. 12, 1940.

EXTREMES OUTSIDE PERIOD OF RECORD.--Stage and discharge of the flood of June 12, 1944, are the greatest known since at least 1880.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 6,000 ft³/s (170 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Mar. 14	----	7200	204	ice jam		Mar. 23	1200	11000	312	10.21	3.112
Mar. 18	1900	*14800	419	11.71	3.569	May 11	1130	7660	217	8.56	2.609

Minimum daily discharge, 165 ft³/s (4.67 m³/s) Nov. 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	266	346	450	360	270	440	2250	1340	1040	791	724	602
2	266	336	400	370	270	520	2120	2720	1100	764	798	678
3	270	336	350	360	270	1400	2030	2920	1040	704	962	609
4	266	336	400	330	260	1300	1890	2880	940	672	757	548
5	270	331	500	320	260	1200	1800	1920	904	659	615	507
6	270	326	400	310	260	1250	1640	1580	819	672	566	524
7	266	326	330	290	250	1600	1510	1450	764	698	496	484
8	266	322	250	270	240	2200	1460	1390	771	724	429	507
9	266	326	230	250	240	1900	1410	1360	805	717	402	711
10	284	331	300	230	235	2000	1410	1740	911	698	376	578
11	288	336	350	225	230	2500	1380	6340	940	665	351	456
12	284	341	420	245	230	3100	1450	4850	882	627	351	418
13	288	351	410	250	230	4500	1810	3440	882	584	366	418
14	298	366	390	240	230	6400	2100	2820	840	542	519	462
15	302	371	400	235	230	5880	2150	2330	771	510	408	490
16	307	371	400	235	240	4630	1990	1980	724	490	376	479
17	302	402	410	225	240	7130	1840	1710	704	460	361	462
18	302	413	430	235	250	12200	1680	1520	711	440	361	451
19	298	361	470	250	260	13000	1600	1980	1540	420	361	418
20	307	293	450	270	270	9800	1660	2710	1840	400	1480	408
21	307	214	430	280	280	6690	1750	1990	3050	380	3120	402
22	331	200	450	280	290	5960	1910	1700	1640	366	3460	387
23	361	190	450	270	310	7740	1700	1510	1200	336	1830	366
24	381	180	400	270	330	6570	1360	1380	1350	387	1190	356
25	381	180	420	260	340	4590	1380	1280	1150	451	926	351
26	371	175	440	280	360	3930	1560	1220	970	501	833	346
27	371	170	390	280	380	3450	1660	1140	918	456	1120	336
28	361	165	410	280	400	3110	1700	1090	911	451	1230	336
29	356	200	400	270	---	2870	1560	1020	833	451	890	322
30	346	300	390	270	---	2720	1440	1030	784	572	771	322
31	341	---	410	270	---	2470	---	962	---	698	653	---
TOTAL	9573	8895	12330	8510	7655	133050	51200	63302	31734	17286	27082	13734
MEAN	309	297	398	275	273	4292	1707	2042	1058	558	874	458
MAX	381	413	500	370	400	13000	2250	6340	3050	791	3460	711
MIN	266	165	230	225	230	440	1360	962	704	336	351	322
AC-FT	18990	17640	24460	16880	15180	263900	101600	125600	62940	34290	53720	27240

CAL YR 1978 TOTAL 441522 MEAN 1210 MAX 36900 MIN 165 AC-FT 875800
WTR YR 1979 TOTAL 384351 MEAN 1053 MAX 13000 MIN 165 AC-FT 762400

06800500 ELKHORN RIVER AT WATERLOO, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water year 1966 to current year.

PERIOD OF DAILY RECORD:
SPECIFIC CONDUCTANCE: November 1977 to current year.
WATER TEMPERATURES: November 1977 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 750 micromhos Jan. 10, 1979; minimum daily, 235 micromhos Mar. 15, 1979.
WATER TEMPERATURES: Maximum, 36.0°C Aug. 19, 1979; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 750 micromhos Jan. 10; minimum daily, 235 micromhos Mar. 15, 1979.
WATER TEMPERATURES: Maximum, 36.0°C Aug. 19; minimum, 0.0°C on many days during winter period.

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (JTU) (00070)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)
OCT										
13...	1445	289	525	8.6	13.0	10	5.8	13.4	6.7	K14000
NOV										
06...	1545	328	516	8.7	10.0	20	3.5	8.7	6.6	5600
DEC										
13...	1045	414	590	7.6	.0	15	7.8	10.7	3.3	1970
JAN										
10...	1320	230	750	7.4	.0	7	5.8	4.2	3.0	K360
FEB										
14...	1145	228	608	7.1	.0	7	3.6	4.6	--	K10000
MAR										
15...	1145	5860	250	7.0	.5	270	--	--	--	K7000
20...	1430	10100	305	7.5	4.5	750	--	8.9	13	K6700
APR										
11...	1400	1360	519	8.2	7.5	45	55	9.8	4.6	K10000
MAY										
09...	1330	1330	558	8.3	16.0	40	38	9.4	4.2	933
JUN										
13...	1515	878	495	8.9	29.0	50	50	--	4.1	930
JUL										
10...	1220	726	500	8.7	26.5	75	90	10.2	--	2200
AUG										
08...	1530	422	420	9.2	34.0	55	25	12.2	10	330
SEP										
15...	1315	409	505	9.0	19.0	40	5.0	11.5	9.5	16000

DATE	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)
OCT									
13...	3300	220	7	62	15	26	.8	8.0	210
NOV									
06...	2100	220	15	63	14	25	.7	7.4	200
DEC									
13...	780	250	7	74	15	29	.8	8.4	240
JAN									
10...	5100	310	16	91	19	38	.9	9.8	290
FEB									
14...	3900	240	12	72	15	30	.8	7.6	230
MAR									
15...	K185000	81	0	24	5.0	5.7	.3	15	90
20...	K200000	120	8	34	7.3	8.6	.4	13	110
APR									
11...	29000	210	2	62	14	23	.7	8.8	210
MAY									
09...	3200	250	34	77	15	23	.6	9.8	220
JUN									
13...	K70	220	22	66	14	23	.7	4.9	200
JUL									
10...	880	200	0	58	14	26	.8	8.0	220
AUG									
08...	230	180	0	55	10	21	.7	9.6	180
SEP									
15...	<100	230	15	67	14	28	.7	8.9	210

K Results based on colony count outside the acceptable range (non-ideal colony count).

06800500 ELKHORN RIVER AT WATERLOO, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS- SOLVED (TONS PER DAY) (70302)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)
OCT									
13...	49	24	.3	22	342	333	.47	267	.14
NOV									
06...	40	18	.3	24	306	315	.42	271	.92
DEC									
13...	42	23	.4	36	386	372	.53	431	2.0
JAN									
10...	58	35	.3	47	--	475	.94	430	2.7
FEB									
14...	47	23	.3	37	377	380	.51	232	2.2
MAR									
15...	11	6.7	.2	8.9	--	143	.19	2260	1.9
20...	24	7.5	.3	12	--	181	.25	4940	--
APR									
11...	51	10	.4	30	356	325	.48	1290	1.8
MAY									
09...	58	12	.4	24	350	358	.48	1260	1.5
JUN									
13...	51	16	.4	20	329	316	.45	780	.02
JUL									
10...	45	12	.5	31	331	327	.45	649	.73
AUG									
08...	44	15	.5	27	285	293	.39	325	.11
SEP									
15...	51	13	.3	20	324	325	.44	428	.38

DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, NH4 + ORG. SUSP. TOTAL (MG/L AS N) (00624)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00666)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
OCT									
13...	.01	1.8	1.8	1.3	.51	1.9	.65	.52	7.1
NOV									
06...	.22	.72	.94	.00	.95	1.9	.55	.40	--
DEC									
13...	.38	.49	.87	.00	.89	2.9	.56	.50	3.5
JAN									
10...	.74	.36	1.1	.00	1.1	3.8	.81	.78	3.0
FEB									
14...	.80	.19	.99	--	--	3.2	.68	.66	--
MAR									
15...	2.3	4.5	6.8	3.0	3.8	8.7	1.6	.30	40
20...	--	--	4.6	2.0	2.6	--	.29	.18	54
APR									
11...	.35	.65	1.0	.59	.41	2.8	.51	.37	12
MAY									
09...	.01	.96	.97	.40	.57	2.5	.53	.40	--
JUN									
13...	.05	1.8	1.8	1.2	.59	1.8	.62	.28	15
JUL									
10...	.04	2.3	2.3	1.4	.86	3.0	.64	.37	17
AUG									
08...	.02	3.1	3.1	2.3	.85	3.2	.70	.42	--
SEP									
15...	.11	2.8	2.9	1.9	.98	3.3	.67	.43	16

DATE	TIME	COLOR (PLAT- INUM- COBALT UNITS) (00080)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)	BICAR- BONATE (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N) (00607)	NITRO- GEN, DIS- SOLVED (MG/L AS N) (00602)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC SUS- PENDED TOTAL (UG/L AS AS) (01001)
NOV											
06...	1545	--	--	--	--	.69	--	--	--	--	--
FEB											
14...	1145	--	--	--	--	2.2	--	--	--	6	0
MAR											
15...	1145	160	150	110	0	1.9	2.0	1.8	5.7	10	7
20...	1430	140	180	130	0	1.9	.95	1.7	4.5	20	17
MAY											
09...	1330	--	--	--	--	1.5	--	--	2.1	8	0
AUG											
08...	1530	--	--	--	--	.11	--	--	1.4	8	--

06800500 ELKHORN RIVER AT WATERLOO, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	BARIUM, SUS-PENDED RECOV-ERABLE (UG/L AS BA) (01006)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CADMIUM SUS-PENDED RECOV-ERABLE (UG/L AS CD) (01026)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	CHRO-MIUM, SUS-PENDED RECOV. (UG/L AS CR) (01031)
NOV										
06...	6	200	0	200	90	3	2	<1	0	--
FEB										
14...	4	200	0	200	80	--	--	--	0	0
MAR										
15...	3	--	--	--	90	2	2	0	40	39
20...	3	--	--	--	80	0	--	--	30	30
MAY										
09...	8	300	100	200	70	3	3	0	10	10
AUG										
08...	12	200	100	100	80	--	0	5	10	10

DATE	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO) (01037)	COBALT, SUS-PENDED RECOV-ERABLE (UG/L AS CO) (01036)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	COPPER, SUS-PENDED RECOV-ERABLE (UG/L AS CU) (01041)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE) (01044)	IRON, DIS-SOLVED (UG/L AS FE) (01046)
NOV										
06...	--	0	0	<3	7	5	2	680	640	40
FEB										
14...	0	2	0	<3	12	7	5	350	340	10
MAR										
15...	1	7	7	0	37	29	8	23000	23000	330
20...	0	21	21	0	70	64	6	43000	43000	270
MAY										
09...	0	2	2	0	2	0	2	3400	3400	10
AUG										
08...	0	3	0	<3	7	3	4	1300	1300	10

DATE	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, SUS-PENDED RECOV-ERABLE (UG/L AS PB) (01050)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN) (01054)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY SUS-PENDED RECOV-ERABLE (UG/L AS HG) (71895)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)
NOV										
06...	--	--	--	80	40	40	.0	.0	.0	3
FEB										
14...	--	--	--	210	20	190	.0	.0	.0	4
MAR										
15...	31	31	0	1300	910	390	.3	.3	.0	2
20...	--	--	--	2300	2100	180	.2	.1	.1	5
MAY										
09...	11	11	0	370	350	20	.3	.3	.0	4
AUG										
08...	8	8	0	450	440	6	.0	.0	.0	3

DATE	SELE-NIUM, SUS-PENDED TOTAL (UG/L AS SE) (01146)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG) (01077)	SILVER, SUS-PENDED RECOV-ERABLE (UG/L AS AG) (01076)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, SUS-PENDED RECOV-ERABLE (UG/L AS ZN) (01091)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)
NOV										
06...	0	3	0	0	0	30	30	<3	--	--
FEB										
14...	0	4	1	0	1	20	10	10	2.8	.6
MAR										
15...	0	2	--	--	0	100	80	20	--	--
20...	1	4	--	--	0	200	180	20	--	--
MAY										
09...	0	5	0	0	0	40	20	20	12	3.4
AUG										
08...	0	3	0	0	0	30	30	<3	21	7.3

06800500 ELKHORN RIVER AT WATERLOO, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	PER-THANE TOTAL (UG/L) (39034)	PCB, TOTAL (UG/L) (39516)	PCB, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39519)	ALDRIN, TOTAL (UG/L) (39330)	ALDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39333)	CHLOR-DANE, TOTAL (UG/L) (39350)	CHLOR-DANE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39351)	DDD, TOTAL (UG/L) (39360)	DDD, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39363)	DDE, TOTAL (UG/L) (39365)	DDE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39368)
NOV												
06...	1545	--	--	0	--	.0	--	0	--	.1	--	.0
FEB												
14...	1145	--	--	0	--	.0	--	0	--	.0	--	.0
MAR												
15...	1145	.00	.0	--	.00	--	.0	--	.00	--	.00	--
20...	1430	.00	.0	--	.00	--	.0	--	.00	--	.00	--
MAY												
09...	1330	--	--	0	--	.0	--	0	--	.0	--	.0
AUG												
08...	1530	--	--	0	--	.0	--	0	--	.0	--	.0

DATE	DDT, TOTAL (UG/L) (39370)	DDT, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39373)	DI-AZINON, TOTAL (UG/L) (39570)	DI-AZINON, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39571)	DI-ELDRIN TOTAL (UG/L) (39380)	DI-ELDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39383)	ENDO-SULFAN, TOTAL (UG/L) (39388)	ENDRIN, TOTAL (UG/L) (39390)	ENDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39393)	ETHION, TOTAL (UG/L) (39398)	ETHION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39399)	HEPTA-CHLOR, TOTAL (UG/L) (39410)
NOV												
06...	--	.0	--	.0	--	.0	--	--	.0	--	.0	--
FEB												
14...	--	.0	--	.0	--	.0	--	--	.0	--	.0	--
MAR												
15...	.00	--	.01	--	.01	--	.00	.00	--	.00	--	.00
20...	.00	--	.00	--	.01	--	.00	.00	--	.00	--	.00
MAY												
09...	--	.0	--	.0	--	.0	--	--	.0	--	.0	--
AUG												
08...	--	.0	--	.0	--	.0	--	--	.0	--	.0	--

DATE	HEPTA-CHLOR, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39413)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L) (39420)	HEPTA-CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG) (39423)	LINDANE TOTAL (UG/L) (39340)	LINDANE TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39343)	MALA-THION, TOTAL (UG/L) (39530)	MALA-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39531)	METH-OXY-CHLOR, TOT. IN BOTTOM MATL. (UG/KG) (39481)	METHYL PARA-THION, TOTAL (UG/L) (39600)	METHYL PARA-THION, TOT. IN BOTTOM MATL. (UG/KG) (39601)	METHYL TRI-THION, TOTAL (UG/L) (39790)
NOV											
06...	.0	--	.0	--	.0	--	.0	.0	--	.0	--
FEB											
14...	.0	--	.0	--	.0	--	.0	.0	--	.0	--
MAR											
15...	--	.00	--	.00	--	.01	--	--	.00	--	.00
20...	--	.00	--	.00	--	.00	--	--	.00	--	.00
MAY											
09...	.0	--	.0	--	.0	--	.0	.0	--	.0	--
AUG											
08...	.0	--	.0	--	.0	--	.0	.0	--	.0	--

DATE	METHYL TRI-THION, TOT. IN BOTTOM MATL. (UG/KG) (39791)	PARA-THION, TOTAL (UG/L) (39540)	PARA-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39541)	TOX-APHENE, TOTAL (UG/L) (39400)	TOXA-PHENE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39403)	TOTAL TRI-THION (UG/L) (39786)	TRI-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39787)	2,4-D, TOTAL (UG/L) (39730)	2,4,5-T TOTAL (UG/L) (39740)	MIREX, TOTAL (UG/L) (39755)	SILVEX, TOTAL (UG/L) (39760)
NOV											
06...	.0	--	.0	--	0	--	.0	--	--	--	--
FEB											
14...	.0	--	.0	--	0	--	.0	--	--	--	--
MAR											
15...	--	.00	--	0	--	.00	--	.38	.00	.00	.00
20...	--	.00	--	0	--	.00	--	.38	.01	.00	.00
MAY											
09...	.0	--	.0	--	0	--	.0	--	--	--	--
AUG											
08...	.0	--	.0	--	0	--	.0	--	--	--	--

06800500 ELKHORN RIVER AT WATERLOO, NE--Continued

PHYTOPLANKTON ANALYSES, JULY 1978 TO AUGUST 1979

DATE	AUG 23,78	SEP 14,78	NOV 6,78	MAY 8,79
TIME	1020	1545	1545	1330
TOTAL CELLS/ML	81000	340000	29000	65000
DIVERSITY: DIVISION	1.3	1.3	1.2	0.7
.CLASS	1.3	1.3	1.2	0.7
..ORDER	1.8	1.5	1.7	0.9
...FAMILY	2.3	2.4	2.2	2.0
....GENUS	2.7	3.3	2.3	2.4

ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)								
.CHLOROPHYCEAE								
..CHLOROCOCCALES								
...OOCYSTACEAE								
....DICHOTOMOCOCCUS	--	-	--	-	--	-	--	-
....GLOEOACTINIUM	--	-	--	-	--	-	--	-
...CHARACIACEAE								
....SCHROEDERIA	--	-	3000	1	--	-	--	-
...CHLOROCOCCACEAE								
....CHLOROCOCCUM	--	-	--	-	--	-	--	-
...COELASTRACEAE								
....COELASTRUM	--	-	4000	1	--	-	--	-
...HYDRODICTYACEAE								
....PEDIASTRUM	1500	2	8000	2	--	-	--	-
...MICRACTINIACEAE								
....GOLENKINIA	--	-	--	-	--	-	*	0
....MICRACTINIUM	3300	4	6000	2	650	2	23000#	35
...OOCYSTACEAE								
....ANKISTRODESMUS	1300	2	--	-	2300	8	1800	3
....CHODATELLA	--	-	*	0	--	-	--	-
....DICTYOSPHAERIUM	880	1	15000	4	--	-	1600	3
....FRANCEIA	*	0	--	-	--	-	--	-
....KIRCHNERIELLA	--	-	7000	2	220	1	--	-
....OOCYSTIS	--	-	4000	1	--	-	--	-
....SELENASTRUM	660	1	22000	7	--	-	--	-
....TETRAEDRON	--	-	--	-	--	-	--	-
....TREUBARIA	*	0	*	0	--	-	--	-
....WESTELLA	--	-	--	-	--	-	--	-
...SCENEDESMACEAE								
....ACTINASTRUM	1800	2	8000	2	--	-	7400	11
....CRUCIGENIA	--	-	20000	6	--	-	--	-
....SCENEDESMUS	34000#	42	99000#	29	7700#	26	21000#	33
....TETRASTRUM	880	1	7000	2	--	-	--	-
..TETRASPORALES								
...PALMELLACEAE								
....SPHAEROCYSTIS	2400	3	--	-	--	-	--	-
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
....CHLAMYDOMONAS	--	-	--	-	650	2	1200	2
....CHLOROGONIUM	--	-	--	-	--	-	--	-
...PHACOTACEAE								
....PTEROMONAS	--	-	--	-	*	0	--	-
CHRYSOPHYTA								
.BACILLARIOPHYCEAE								
..CENTRALES								
...COSCINODISCACEAE								
....CYCLOTELLA	1100	1	18000	5	14000#	47	4300	7
....MELOSIRA	--	-	--	-	220	1	--	-
....STEPHANODISCUS	2200	3	--	-	--	-	--	-
..PENNALES								
...ACHNANTHACEAE								
....ACHNANTHES	*	0	--	-	--	-	--	-
...GOMPHONEMATACEAE								
....GOMPHONEMA	--	-	--	-	220	1	--	-
...NAVICULACEAE								
....CALONEIS	--	-	--	-	*	0	--	-
....GYROSIGMA	--	-	--	-	*	0	--	-
....NAVICULA	--	-	2000	1	--	-	*	0
...NITZSCHIACEAE								
....HANTZSCHIA	--	-	--	-	*	0	--	-
....NITZSCHIA	2200	3	3000	1	1700	6	1800	3
...SURIRELLACEAE								
....SURIRELLA	--	-	--	-	*	0	--	-
.XANTHOPHYCEAE								
..HETEROCOCCALES								
...CENTRITRACTACEAE								
....CENTRITRACTUS	--	-	--	-	--	-	--	-
CRYPTOPHYTA (CRYPTOMONADS)								
.CRYPTOPHYCEAE								
..CRYPTOMONADALES								
...CRYPTOMONADACEAE								
....CRYPTOMONAS	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

06800500 ELKHORN RIVER AT WATERLOO, NE--Continued

PHYTOPLANKTON ANALYSES, JULY 1978 TO AUGUST 1979

DATE	AUG 23,78		SEP 14,78		NOV 6,78		MAY 8,79	
TIME	1020		1545		1545		1330	
ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CYANOPHYTA (BLUE-GREEN ALGAE)								
.CYANOPHYCEAE								
..CHROOCOCCALES								
...CHROOCOCCACEAE								
....AGMENELLUM	21000#	26	83000#	25	--	-	--	-
....ANACYSTIS	--	-	12000	4	1400	5	--	-
....COCCOCHLORIS	--	-	--	-	--	-	--	-
..HORMOGONALES								
...NOSTOCACEAE								
....ANABAENA	--	-	--	-	--	-	--	-
...OSCILLATORIACEAE								
....OSCILLATORIA	6600	8	13000	4	--	-	2000	3
EUGLENOPHYTA (EUGLENOIDS)								
.EUGLENOPHYCEAE								
..EUGLENALES								
...EUGLENACEAE								
....EUGLENA	*	0	*	0	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

06800500 ELKHORN RIVER AT WATERLOO, NE--Continued

PHYTOPLANKTON ANALYSES, JULY 1978 TO AUGUST 1979

	JUN 13,79	JUL 10,79	AUG 8,79
DATE	JUN 13,79	JUL 10,79	AUG 8,79
TIME	1515	1220	1530
TOTAL CELLS/ML	260000	230000	590000
DIVERSITY: DIVISION	1.3	1.3	0.6
.CLASS	1.3	1.3	0.6
..ORDER	1.5	1.4	1.5
...FAMILY	2.4	2.2	2.0
....GENUS	3.2	3.3	2.7

ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)						
.CHLOROPHYCEAE						
..CHLOROCOCCALES						
...OOCYSTACEAE						
....DICHOTOMOCOCCUS	--	-	--	-	8500	1
....GLOEOACTINIUM	11000	4	--	-	--	-
...CHARACIACEAE						
....SCHROEDERIA	--	-	--	-	--	-
...CHLOROCOCCACEAE						
....CHLOROCOCCUM	--	-	*	0	--	-
...COELASTRACEAE						
....COELASTRUM	11000	4	--	-	6400	1
...HYDRODICTYACEAE						
....PEDIASTRUM	--	-	--	-	--	-
...MICRACTINIACEAE						
....GOLENKINIA	5500	2	1600	1	--	-
....MICRACTINIUM	31000	12	13000	6	*	0
...OOCYSTACEAE						
....ANKISTRODESMUS	2400	1	6400	3	3200	1
....CHODATELLA	--	-	--	-	*	0
....DICTYOSPHAERIUM	--	-	4200	2	*	0
....FRANCEIA	--	-	--	-	--	-
....KIRCHNERIELLA	--	-	--	-	*	0
....OOCYSTIS	6300	2	2600	1	--	-
....SELENASTRUM	*	0	*	0	--	-
....TETRAEDRON	--	-	*	0	--	-
....TREUBARIA	--	-	5800	3	--	-
....WESTELLA	--	-	13000	6	--	-
...SCENEDESMACEAE						
....ACTINASTRUM	24000	9	25000	11	*	0
....CRUCIGENIA	--	-	2100	1	--	-
....SCENEDESMUS	50000#	19	64000#	28	41000	7
....TETRASTRUM	6300	2	4200	2	6400	1
..TETRASPORALES						
...PALMELLACEAE						
....SPHAEROCYSTIS	--	-	--	-	--	-
..VOLVOCALES						
...CHLAMYDOMONADACEAE						
....CHLAMYDOMONAS	1600	1	*	0	--	-
....CHLOROGONIUM	--	-	--	-	*	0
...PHACOTACEAE						
....PTEROMONAS	--	-	--	-	--	-
CHRYSOPHYTA						
.BACILLARIOPHYCEAE						
..CENTRALES						
...COSCINODISCACEAE						
....CYCLOTELLA	4700	2	13000	6	--	-
....MELOSIRA	--	-	--	-	--	-
....STEPHANODISCUS	11000	4	--	-	--	-
..PENNALES						
...ACHNANTHACEAE						
....ACHNANTHES	--	-	--	-	--	-
...GOMPHONEMATACEAE						
....GOMPHONEMA	--	-	--	-	--	-
...NAVICULACEAE						
....CALONEIS	--	-	--	-	--	-
....GYROSIGMA	--	-	--	-	--	-
....NAVICULA	--	-	*	0	--	-
...NITZSCHIACEAE						
....HANTZSCHIA	--	-	--	-	--	-
....NITZSCHIA	10000	4	4200	2	*	0
...SURIRELLACEAE						
....SURIRELLA	--	-	--	-	--	-
.XANTHOPHYCEAE						
..HETEROCOCCALES						
...CENTRITRACTACEAE						
....CENTRITRACTUS	--	-	--	-	*	0
CRYPTOPHYTA (CRYPTOMONADS)						
.CRYPTOPHYCEAE						
..CRYPTOMONADALES						
...CRYPTOMONADACEAE						
....CRYPTOMONAS	--	-	*	0	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

06800500 ELKHORN RIVER AT WATERLOO, NE--Continued

PHYTOPLANKTON ANALYSES, JULY 1978 TO AUGUST 1979

DATE TIME	JUN 13,79 1515		JUL 10,79 1220		AUG 8,79 1530	
ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CYANOPHYTA (BLUE-GREEN ALGAE)						
.CYANOPHYCEAE						
..CHROOCOCCALES						
...CHROOCOCCACEAE						
....AGMENELLUM	13000	5	18000	8	83000	14
....ANACYSTIS	74000#	28	43000#	19	32000	5
....COCCOCHLORIS	--	-	--	-	130000#	22
..HORMOGONALES						
...NOSTOCACEAE						
....ANABAENA	--	-	--	-	220000#	36
...OSCILLATORIACEAE						
....OSCILLATORIA	--	-	--	-	52000	9
EUGLENOPHYTA (EUGLENOIDS)						
.EUGLENOPHYCEAE						
..EUGLENALES						
...EUGLENACEAE						
....EUGLENA	--	-	*	0	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	LENGTH OF EXPO-SURE (DAYS) (00022)	BIOMASS CHLORO-PHYLL RATIO PERI-PHYTON (UNITS) (70950)	CHLOR-A PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2) (70957)	CHLOR-B PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2) (70958)	PERI-PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M (00573)	PERI-PHYTON BIOMASS ASH WEIGHT G/SQ M (00572)
JUN						
13...	36	215	3.26	.000	13.0	12.3
JUL						
09...	26	458	1.20	.000	2.52	1.97

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)
AUG					
28...	1400	403	7.8	24.0	7.5
28...	1600	399	8.0	24.0	7.6
28...	1800	392	7.7	24.5	7.2
28...	2000	388	7.6	24.0	7.0
28...	2200	392	7.6	23.5	6.7
28...	2400	398	7.6	23.0	6.5
29...	0200	405	7.7	22.5	6.4
AUG					
29...	0400	418	7.7	22.0	6.4
29...	0600	413	7.7	22.0	6.4
29...	0800	402	7.6	22.0	6.5
29...	1000	403	7.9	22.5	7.0
29...	1200	416	7.8	23.5	7.7
29...	1400	425	7.9	25.0	8.3

06800500 ELKHORN RIVER AT WATERLOO, NE--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	540	---	---	---	---	468	537	508	---	---	---	---
2	535	---	---	---	---	471	508	489	---	---	---	---
3	530	---	---	---	---	460	513	488	---	---	---	---
4	569	---	---	---	---	388	515	489	---	---	---	---
5	572	---	---	---	---	419	507	389	---	---	---	---
6	535	516	---	---	---	468	509	462	---	---	---	---
7	538	---	---	---	---	412	512	499	---	---	---	---
8	519	---	---	---	---	366	515	537	---	---	---	---
9	522	---	---	---	---	383	518	577	---	---	420	---
10	567	---	---	750	---	353	515	485	---	500	---	---
11	553	---	---	---	---	352	505	467	---	---	---	---
12	537	---	---	---	---	349	500	469	---	---	---	---
13	535	---	590	---	---	286	487	457	495	---	---	---
14	532	---	---	---	608	250	478	448	---	---	---	525
15	534	---	---	---	---	235	460	491	---	---	---	505
16	535	---	---	---	---	257	448	504	---	---	---	---
17	538	---	---	---	---	291	443	503	---	---	---	---
18	540	---	---	---	---	302	445	509	---	---	---	---
19	541	---	---	---	---	311	447	500	---	---	---	---
20	543	---	---	---	---	412	441	506	---	---	---	---
21	528	---	---	---	---	402	455	509	---	---	---	---
22	534	---	---	---	---	428	427	507	---	---	---	---
23	538	---	---	---	---	403	472	503	---	---	422	---
24	550	---	---	---	---	380	485	508	---	---	---	---
25	538	---	---	---	---	385	394	501	---	---	---	---
26	541	---	---	---	---	390	483	503	---	---	---	---
27	537	---	---	---	---	502	487	504	---	---	---	---
28	539	---	---	---	---	500	483	507	---	---	---	---
29	536	---	---	---	---	445	488	508	---	---	---	---
30	533	---	---	---	---	496	365	507	---	---	---	---
31	527	---	---	---	---	492	---	509	---	---	---	---

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15.0	---	---	---	---	.0	5.0	16.0	---	---	---	---
2	15.0	---	---	---	---	.0	3.0	14.0	---	---	---	---
3	17.0	---	---	---	---	.0	2.0	15.0	---	---	---	---
4	16.0	---	---	---	---	.0	6.0	16.0	---	---	---	---
5	17.0	---	---	---	---	.0	3.5	13.0	---	---	---	---
6	18.0	10.0	---	---	---	.0	7.0	18.0	---	---	---	---
7	19.0	---	---	---	---	.0	4.0	18.0	---	---	---	---
8	17.0	---	---	---	---	.0	5.0	18.0	---	---	---	---
9	18.0	---	---	---	---	.0	5.0	16.0	---	---	34.0	---
10	17.0	---	---	---	---	.0	8.0	17.0	---	26.5	---	---
11	16.0	---	---	---	---	.0	9.0	15.0	---	---	---	---
12	15.0	---	---	---	---	.0	9.0	16.0	---	---	---	---
13	17.0	---	.0	---	---	.5	10.0	17.5	29.0	---	---	---
14	18.0	---	---	---	.0	1.0	11.0	18.0	---	---	---	---
15	17.5	---	---	---	---	.0	15.0	20.0	---	---	---	19.0
16	18.0	---	---	---	---	.0	17.0	19.0	---	---	---	---
17	17.0	---	---	---	---	.0	19.0	20.0	---	---	---	---
18	17.5	---	---	.0	---	1.0	19.0	21.0	---	---	---	---
19	18.5	---	---	---	---	1.0	16.0	21.0	---	---	---	---
20	19.0	---	---	---	---	1.0	19.0	22.0	---	---	---	---
21	20.0	---	---	---	---	1.0	17.0	21.0	---	---	---	---
22	19.0	---	---	---	---	1.0	18.0	22.0	---	---	---	---
23	18.0	---	---	---	---	1.0	18.0	22.0	---	---	---	---
24	18.0	---	---	---	---	1.0	17.0	23.0	---	---	---	---
25	18.0	---	---	---	---	1.0	16.0	23.0	---	---	---	---
26	18.0	---	---	---	---	2.0	16.0	22.0	---	---	---	---
27	19.0	---	---	---	---	1.0	15.0	22.5	---	---	---	---
28	13.0	---	---	---	---	1.0	15.0	22.5	---	---	---	---
29	12.0	---	---	---	---	2.0	14.0	23.0	---	---	---	---
30	16.0	---	---	---	---	1.0	13.0	23.0	---	---	---	---
31	12.5	---	---	---	---	1.0	---	22.5	---	---	---	---

06800500 ELKHORN RIVER AT WATERLOO, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)
OCT							
13...	1420	289	13.0	46	36	--	--
NOV							
06...	1510	328	10.0	89	79	--	--
MAR							
15...	1100	5860	.5	2180	34500	20	27
20...	1430	10100	4.5	8330	227000	--	--
28...	1340	3100	8.0	1870	15700	22	24
APR							
11...	1345	1360	7.5	394	1450	--	--
MAY							
09...	1330	1330	16.0	326	1170	--	--
JUN							
13...	1515	878	29.0	290	687	27	29
JUL							
10...	1215	726	26.5	282	553	--	--
AUG							
08...	1530	422	34.0	150	171	--	--
SEP							
15...	1150	489	19.0	186	246	--	--

DATE	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70344)	SED. SUSP. FALL DIAM. % FINER THAN .500 MM (70345)	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM (70346)
OCT						
13...	--	84	95	98	99	100
NOV						
06...	--	57	74	97	100	--
MAR						
15...	37	73	93	97	99	100
20...	--	57	78	96	99	100
28...	31	56	75	86	90	96
APR						
11...	--	58	67	88	95	100
MAY						
09...	--	69	80	97	100	--
JUN						
13...	34	69	94	95	100	--
JUL						
10...	--	88	93	97	100	--
AUG						
08...	--	88	93	99	100	--
SEP						
15...	--	78	87	95	98	98

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	NUMBER OF SAM-PLING POINTS (00063)	BED MAT. FALL DIAM. % FINER THAN .062 MM (80158)	BED MAT. FALL DIAM. % FINER THAN .125 MM (80159)	BED MAT. FALL DIAM. % FINER THAN .250 MM (80160)	BED MAT. FALL DIAM. % FINER THAN .500 MM (80161)	BED MAT. FALL DIAM. % FINER THAN 1.00 MM (80162)	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM (80171)	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM (80172)
NOV												
06...	1510	328	7	0	1	25	65	84	92	97	100	--
MAR												
15...	1100	5860	2	0	4	25	84	89	96	97	99	100
20...	1430	10100	3	0	60	94	95	97	100	--	--	--
28...	1340	3100	4	0	12	44	80	94	99	100	--	--
APR												
11...	1345	1360	5	0	9	31	66	85	93	96	98	100
MAY												
09...	1330	1330	4	0	2	23	63	77	86	94	100	--
JUN												
13...	1515	878	9	0	1	28	67	76	92	97	100	--
JUL												
10...	1215	726	4	0	3	27	71	93	97	100	--	--
SEP												
15...	1150	489	3	--	0	24	53	76	86	95	100	--

PLATTE RIVER BASIN

06803000 SALT CREEK AT ROCA, NE

LOCATION.--Lat 40°39'29", long 96°39'55", in NW1/4SW1/4 sec.17, T.8 N., R.7 E., Lancaster County, Hydrologic Unit 10200203, on left bank 15 ft (5 m) downstream from highway bridge at west edge of Roca.

DRAINAGE AREA.--167 mi² (433 km²).

PERIOD OF RECORD.--May 1951 to current year.

REVISED RECORDS.-- WDR NE-71: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,192.50 ft (363.474 m) National Geodetic Vertical Datum of 1929, Kansas City supplementary adjustment of 1943. Prior to May 16, 1956, nonrecording gage at present site and datum.

REMARKS.--Records fair except those for winter period and periods of backwater from beaver dams, which are poor. Flood flow affected by several detention dams.

AVERAGE DISCHARGE.--28 years, 42.6 ft³/s (1.206 m³/s), 30,860 acre-ft/yr (38.1 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,700 ft³/s (473 m³/s) July 10, 1958, gage height, 22.70 ft (6.919 m); minimum daily, 0.2 ft³/s (0.006 m³/s) July 23, 1955.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 8, 1950, reached a stage of 26.0 ft (7.92 m), from floodmark established by Corps of Engineers, discharge, 67,000 ft³/s (1,900 m³/s), but may have been exceeded by flood of July 5, 1908.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 850 ft³/s (24.1 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Mar. 3	0430	*3440	97.4	17.82	5.432	Mar. 23	0300	2650	75.0	16.37	4.990
Mar. 6	2100	2200	62.3	a15.35	4.679	June 28	1100	1290	36.5	12.28	3.743
Mar. 18	1530	2140	60.6	15.09	4.599						

a From graph based on wire weight readings.

Minimum daily discharge, 2.1 ft³/s (0.059 m³/s) Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	8.2	13	10	16	350	117	38	12	75	41	5.0
2	10	8.8	13	11	18	1010	133	311	12	55	41	5.9
3	9.6	8.7	13	12	17	2980	118	176	11	42	57	6.5
4	9.0	8.2	14	12	16	1600	98	102	11	40	31	5.7
5	8.1	8.6	14	11	15	742	79	77	10	119	22	5.4
6	8.1	8.8	12	13	20	1050	67	64	9.2	54	17	5.3
7	8.0	8.8	11	12	18	1290	65	58	9.0	47	15	4.8
8	8.0	8.9	12	12	17	525	65	98	9.8	39	12	4.1
9	8.0	9.9	12	14	17	440	57	43	11	34	11	4.2
10	7.6	11	12	15	20	365	58	36	12	30	11	4.2
11	7.2	9.7	14	16	21	270	64	32	12	23	9.8	4.0
12	7.1	9.3	15	17	20	255	72	30	8.7	41	8.8	3.6
13	7.0	10	14	15	22	228	62	28	9.1	40	8.5	4.2
14	6.9	11	14	14	18	163	54	27	12	39	8.4	4.2
15	6.8	10	15	16	20	120	45	26	10	218	8.0	4.0
16	6.7	11	15	17	17	98	43	25	8.5	83	7.3	3.6
17	6.6	13	13	18	19	89	41	25	7.7	55	7.2	3.6
18	6.4	14	14	19	21	1130	38	22	7.5	48	7.0	3.6
19	6.4	12	14	19	22	1170	33	23	7.3	43	6.5	4.0
20	6.6	12	14	18	21	448	34	22	6.8	40	6.2	3.6
21	7.0	11	13	18	20	321	33	20	6.2	37	6.2	3.6
22	8.0	12	15	20	25	908	33	19	5.8	35	6.5	3.6
23	9.8	13	14	18	24	1830	34	18	7.4	34	6.1	3.6
24	8.7	13	11	17	22	660	33	18	8.8	57	5.8	3.4
25	7.7	13	12	21	30	434	32	21	7.1	47	5.8	3.4
26	7.6	13	12	19	45	332	37	21	6.3	26	6.3	3.2
27	8.2	12	13	18	70	305	36	16	5.9	21	6.6	2.8
28	8.0	12	15	17	150	262	36	14	704	18	6.2	2.5
29	7.9	14	15	16	---	226	50	13	251	16	6.0	2.3
30	7.6	13	13	17	---	157	47	12	98	29	5.6	2.1
31	7.8	---	12	15	---	121	---	12	---	57	5.2	---
TOTAL	244.4	327.9	413	487	761	19879	1714	1447	1297.1	1542	402.0	120.0
MEAN	7.88	10.9	13.3	15.7	27.2	641	57.1	46.7	43.2	49.7	13.0	4.00
MAX	12	14	15	21	150	2980	133	311	704	218	57	6.5
MIN	6.4	8.2	11	10	15	89	32	12	5.8	16	5.2	2.1
AC-FT	485	650	819	966	1510	39430	3400	2870	2570	3060	797	238

CAL YR 1978 TOTAL 24674.3 MEAN 67.6 MAX 2170 MIN 6.0 AC-FT 48940
WTR YR 1979 TOTAL 28634.4 MEAN 78.5 MAX 2980 MIN 2.1 AC-FT 56800

06803080 SALT CREEK ABOVE BEAL SLOUGH, AT LINCOLN, NE

LOCATION.--Lat 40°46'13", long 96°43'05", in SW1/4SW1/4 sec.2, T.9 N., R.6 E., Lancaster County, Hydrologic Unit 10200203, at county road bridge 0.9 miles west of U.S. Highway 77 and of northeast corner of State Penitentiary at Lincoln.

DRAINAGE AREA.--221 sq mi.

PERIOD OF RECORD.--Water year 1971 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)
OCT										
18...	1015	30	600	7.6	10.0	38	9.0	66	2.4	--
NOV										
16...	0900	18	1260	7.6	3.5	7.0	11.9	17	3.4	K27
DEC										
13...	1000	15	1750	7.7	.5	1.1	14.6	30	2.0	K28
JAN										
09...	0815	12	1440	7.5	.5	3.5	11.4	20	1.7	K200
FEB										
06...	1000	16	1350	7.3	1.0	9.0	--	33	3.6	540
MAR										
07...	1030	2300	175	6.8	2.0	900	11.3	140	10	1230
APR										
03...	1300	95	631	7.8	5.0	100	12.1	38	3.9	K1720
MAY										
07...	1030	102	615	7.9	17.0	100	9.6	47	10	1400
31...	1045	17	775	8.1	17.0	20	8.1	30	3.9	K60
JUN										
27...	1110	10	855	7.9	25.5	29	7.1	26	5.3	400
JUL										
26...	1400	49	498	7.7	25.5	70	6.6	40	6.8	K7600
AUG										
23...	1115	8.0	878	7.6	22.0	15	8.8	18	1.2	1200
SEP										
21...	1415	10	1110	8.0	23.0	13	--	35	3.0	--

K Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	CALCIUM TOTAL RECOV-ERABLE (MG/L AS CA) (00916)	MAGNE-SIUM, TOTAL RECOV-ERABLE (MG/L AS MG) (00927)	SODIUM, TOTAL RECOV-ERABLE (MG/L AS NA) (00929)	POTAS-SIUM, TOTAL RECOV-ERABLE (MG/L AS K) (00937)	BICAR-BONATE (MG/L AS HCO3) (00440)	CAR-BONATE (MG/L AS CO3) (00445)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)
OCT										
18...	1020	86	12	37	9.6	194	0	300	54	39
NOV										
16...	248	88	24	120	7.0	332	0	272	100	180
DEC										
13...	160	88	25	130	6.5	360	0	310	120	140
JAN										
09...	180	96	27	190	8.3	352	0	289	180	260
FEB										
06...	92	110	23	150	6.8	308	0	253	130	210
MAR										
07...	38000	35	15	9.8	14	68	0	56	15	8.8
APR										
03...	7200	61	16	40	5.7	--	--	200	90	38
MAY										
07...	1350	69	17	39	9.8	232	0	190	68	30
31...	124	89	20	60	6.3	326	0	267	88	58
JUN										
27...	900	88	19	80	6.0	284	30	270	93	100
JUL										
26...	2900	46	13	30	8.5	196	0	161	40	46
AUG										
23...	220	70	16	67	6.0	--	--	--	95	81
SEP										
21...	--	73	18	63	6.0	--	--	240	120	130

06803080 SALT CREEK ABOVE BEAL SLOUGH, AT LINCOLN, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L) (00500)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)
OCT										
18...	310	.42	25.3	411	.42	.02	2.0	2.0	2.4	.28
NOV										
16...	772	1.05	37.5	--	.28	.05	.44	.49	.77	.29
DEC										
13...	735	1.00	29.8	758	1.4	.06	.44	.50	1.9	.30
JAN										
09...	954	1.30	30.9	983	1.1	.09	.38	.47	1.6	.27
FEB										
06...	817	1.11	35.3	--	1.2	.41	.47	.88	2.1	.31
MAR										
07...	100	.14	621	3010	1.2	.60	.90	1.5	2.7	.36
APR										
03...	387	.53	99.3	614	1.8	.36	1.0	1.4	3.2	.42
MAY										
07...	384	.52	106	607	2.5	.10	--	--	--	--
31...	508	.69	23.9	--	.45	.10	.86	.96	1.4	.32
JUN										
27...	560	.76	15.1	611	.99	.08	.70	.78	1.8	.38
JUL										
26...	311	.42	41.6	2030	2.0	.25	1.6	1.8	3.8	.27
AUG										
23...	519	.71	11.3	--	.22	.01	.51	.52	.74	.27
SEP										
21...	617	.84	16.7	655	.08	.05	.43	.48	.56	.24

DATE	TIME	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)
NOV								
16...	0900	320	48	88	24	130	3.2	6.8
FEB								
06...	1000	340	55	95	24	140	3.3	6.8
MAY								
31...	1045	320	56	95	21	64	1.5	3.2
AUG								
23...	1115	260	--	75	18	77	2.1	6.4

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P) (00666)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)
NOV								
16...	.3	19	712	.21	190	20	160	2
FEB								
06...	.4	27	786	.25	220	<0	410	2
MAY								
31...	.4	9.2	501	.22	140	10	200	1
AUG								
23...	.4	7.0	--	.23	230	<10	170	1

06803080 SALT CREEK ABOVE BEAL SLOUGH, AT LINCOLN, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	PER-THANE TOTAL (UG/L) (39034)	PCB, TOTAL (UG/L) (39516)	NAPH-THA-LENES, POLY-CHLOR. TOTAL (UG/L) (39250)	ALDRIN, TOTAL (UG/L) (39330)	CHLOR-DANE, TOTAL (UG/L) (39350)	DDD, TOTAL (UG/L) (39360)	DDE, TOTAL (UG/L) (39365)	DDT, TOTAL (UG/L) (39370)
DEC 13...	1000	.00	.0	.00	.00	.0	.00	.00	.00
FEB 06...	1000	.00	.0	--	.00	.0	.00	.00	.00
MAY 31...	1045	.00	.0	--	.00	.0	.00	.00	.00
AUG 23...	1115	.00	.0	--	.00	.0	.00	.00	.00

DATE	DI-AZINON, TOTAL (UG/L) (39570)	DI-ELDRIN TOTAL (UG/L) (39380)	ENDO-SULFAN, TOTAL (UG/L) (39388)	ENDRIN, TOTAL (UG/L) (39390)	ETHION, TOTAL (UG/L) (39398)	HEPTA-CHLOR, TOTAL (UG/L) (39410)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L) (39420)	LINDANE TOTAL (UG/L) (39340)	MALA-THION, TOTAL (UG/L) (39530)
DEC 13...	.00	.00	.00	.00	.00	.00	.00	.00	.00
FEB 06...	.00	.00	.00	.00	.00	.00	.00	.00	.00
MAY 31...	.00	.00	.00	.00	.00	.00	.00	.00	.00
AUG 23...	.00	.00	.00	.00	.00	.00	.00	.00	.00

DATE	METHYL PARA-THION, TOTAL (UG/L) (39600)	METHYL TRI-THION, TOTAL (UG/L) (39790)	PARA-THION, TOTAL (UG/L) (39540)	TOX-APHENE, TOTAL (UG/L) (39400)	TOTAL TRI-THION (UG/L) (39786)	2,4-D, TOTAL (UG/L) (39730)	2,4,5-T TOTAL (UG/L) (39740)	MIREX, TOTAL (UG/L) (39755)	SILVEX, TOTAL (UG/L) (39760)
DEC 13...	.00	.00	.00	0	.00	.04	.00	.00	.00
FEB 06...	.00	.00	.00	0	.00	.00	.00	.00	.00
MAY 31...	.00	.00	.00	0	.00	.11	.00	.00	.00
AUG 23...	.00	.00	.00	0	.00	.02	.00	.00	.00

06803500 SALT CREEK AT LINCOLN, NE

LOCATION.--Lat 40°50'49", long 96°40'54", in NW1/4SW1/4 sec.7, T.10 N., R.7 E., Lancaster County, Hydrologic Unit 10200203 on right bank 135 ft (41 m) downstream from bridge on North 27th Street at north edge of Lincoln, 1 mi (2 km) downstream from Oak Creek.

DRAINAGE AREA.--684 mi^2 (1,772 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1949 to current year.

REVISED RECORDS.--WDR NE-71: Drainage area.

GAGE.--Water-stage recorder; nonrecording gage read twice daily. Datum of gage is 1,113.90 ft (339.517 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair. Flood flow affected by several detention dams.

AVERAGE DISCHARGE.--30 years, 205 ft^3/s (5.806 m^3/s), 148,500 acre-ft/yr (0.183 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 28,200 ft^3/s (799 m^3/s) June 2, 1951, gage height, 26.15 ft (7.971 m); minimum daily, 21 ft^3/s (0.59 m^3/s) July 10, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 2, 1951, may have been equaled or exceeded in discharge by flood of July 6, 1908, which reached a stage of 33.6 ft (10.24 m). Channel changes since 1908 have materially altered the stage-discharge relation.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,000 ft^3/s (85.0 m^3/s) and maximum(*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Mar. 3	0300	*11900	337	18.60	5.669	Mar. 23	0330	6100	173	13.60	4.145
Mar. 6	2400	6590	187	14.10	4.298	May 2	0600	8760	248	16.10	4.907
Mar. 18	1730	7890	223	15.35	4.679	July 15	0900	5380	152	12.66	3.859

Minimum daily discharge, 58 ft^3/s (1.64 m^3/s) Dec. 3, Jan. 1, 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	81	88	105	58	81	891	430	250	128	318	175	94
2	88	86	74	58	77	2660	411	5680	110	266	162	90
3	82	86	77	62	81	7560	383	1950	105	217	160	87
4	81	84	92	64	72	2740	350	1080	110	210	158	92
5	79	76	90	60	77	1560	327	831	114	290	128	90
6	79	82	84	62	77	2600	304	652	118	279	122	87
7	76	81	82	66	77	4160	284	592	120	202	116	82
8	69	79	77	70	79	1600	276	550	118	190	110	77
9	76	81	74	76	79	1250	268	515	137	184	99	72
10	76	79	64	76	79	1300	252	430	120	182	154	75
11	82	82	77	76	70	966	271	389	112	173	90	77
12	82	88	82	79	74	1180	274	335	99	219	85	98
13	81	86	86	81	81	1220	263	310	96	186	85	84
14	86	90	82	72	79	886	234	298	99	156	116	74
15	96	88	86	81	86	587	217	279	98	3050	98	72
16	110	88	82	81	79	452	217	260	112	866	94	69
17	98	124	74	79	79	490	210	242	99	478	89	72
18	102	98	81	79	76	4180	205	240	96	330	90	72
19	90	77	86	90	90	3310	197	219	98	271	94	80
20	82	88	88	86	90	1280	212	202	101	234	87	197
21	79	84	86	76	102	881	200	182	99	207	142	80
22	188	82	86	90	149	2380	197	173	114	188	92	74
23	108	79	77	86	173	4820	193	169	175	182	90	70
24	94	79	64	81	168	1790	175	160	122	282	85	77
25	90	79	72	81	149	977	1030	154	112	263	114	74
26	86	114	98	81	233	777	433	156	107	202	395	75
27	82	108	74	77	317	675	327	156	110	175	420	82
28	86	105	68	70	836	607	266	146	1590	166	146	210
29	76	131	64	81	---	550	279	144	1020	156	124	207
30	81	98	60	81	---	482	279	142	439	156	116	202
31	92	---	58	77	---	386	---	137	---	171	108	---
TOTAL	2758	2690	2450	2337	3710	55197	8964	17023	6078	10449	4144	2892
MEAN	89.0	89.7	79.0	75.4	133	1781	299	549	203	337	134	96.4
MAX	188	131	105	90	836	7560	1030	5680	1590	3050	420	210
MIN	69	76	58	58	70	386	175	137	96	156	85	69
AC-FT	5470	5340	4860	4640	7360	109500	17780	33770	12060	20730	8220	5740

CAL YR 1978 TOTAL 101112 MEAN 277 MAX 4010 MIN 58 AC-FT 200600
WTR YR 1979 TOTAL 118692 MEAN 325 MAX 7560 MIN 58 AC-FT 235400

06803500 SALT CREEK AT LINCOLN, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1951, 1952-54, 1968 to current year.

PERIOD OF DAILY RECORD:
SPECIFIC CONDUCTANCE: October 1968 to current year.
WATER TEMPERATURES: May to September 1951, October 1968 to current year.
SUSPENDED SEDIMENT DISCHARGE: March to September 1951, March 1952 to September 1954.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 37,500 micromhos Oct. 3, 1973; minimum daily, 170 micromhos Oct. 11, 1973.
WATER TEMPERATURES: Maximum, 36.5°C June 20, 1974; minimum, 0.0°C on several days during winter periods.
SEDIMENT CONCENTRATIONS: Maximum daily, 41,100 mg/L Mar. 31, 1952; minimum daily not determined.
SEDIMENT LOADS: Maximum daily, 857,000 tons (780,000 tonnes) June 2, 1951; minimum daily not determined.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 6,350 micromhos Sept. 18; minimum daily, 238 micromhos Mar. 3.
WATER TEMPERATURES: Maximum, 30.0°C Aug. 3, 7; minimum, 0.0°C Mar. 3.

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (JTU) (00070)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT										
18...	1315	88	4800	7.8	17.0	15	8.2	8.5	--	88
NOV										
14...	1310	142	4590	7.8	11.5	9	9.7	8.5	40	80
DEC										
13...	1100	92	4050	7.6	6.0	20	9.6	3.5	223	168
JAN										
09...	0935	77	5600	7.5	6.0	8	8.4	14	K33	K340
FEB										
07...	0830	78	4600	7.3	5.0	15	8.8	21	<10	K8
MAR										
07...	1330	3580	260	7.3	2.0	550	10.8	16	833	K60000
APR										
02...	1315	371	1810	8.0	14.0	60	11.4	15	K20	K280
MAY										
01...	1350	252	2000	7.8	19.0	30	8.5	--	K10	K300
JUN										
04...	0920	107	5150	7.9	18.5	15	7.8	2.6	K100	148
27...	1325	--	4450	7.7	25.0	20	8.6	4.0	<10	K40
JUL										
26...	1250	208	2530	7.6	26.5	60	7.4	30	<10	K50
AUG										
27...	1510	278	2320	7.6	22.5	380	7.0	20	27000	20000
SEP										
21...	1505	65	5950	7.7	23.0	--	--	35	--	--

K Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)
OCT										
18...	270	2640	3.59	627	.83	5.6	1.8	7.4	8.2	3.5
NOV										
14...	1200	2510	3.41	962	1.4	8.4	1.1	9.5	11	5.1
DEC										
13...	990	2220	3.02	551	1.6	8.3	4.7	13	15	4.6
JAN										
09...	1500	3130	4.26	651	.80	7.8	.30	8.1	8.9	4.5
FEB										
07...	1300	--	3.84	600	--	8.7	1.1	9.8	11	3.7
MAR										
07...	27	161	.22	1560	1.2	.81	4.6	5.4	6.6	.34
APR										
02...	410	1050	1.43	1050	1.4	2.1	2.6	4.7	6.1	1.0
MAY										
01...	450	1100	1.50	748	.77	5.9	2.0	7.9	8.7	3.8
JUN										
04...	1400	--	4.01	852	.66	3.8	1.0	4.8	5.5	2.0
27...	1200	2580	3.51	--	2.7	1.5	1.2	2.7	5.4	1.3
JUL										
26...	850	1490	2.03	837	1.9	1.6	2.5	4.1	6.0	1.3
AUG										
27...	490	--	1.58	871	1.8	4.3	.00	4.3	6.1	--
SEP										
21...	1700	3450	4.69	605	1.4	9.3	5.7	15	16	5.0

06803500 SALT CREEK AT LINCOLN, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	COLOR (PLATINUM-COBALT UNITS) (00080)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	BICARBONATE (MG/L AS HCO3) (00440)	CARBONATE (MG/L AS CO3) (00445)
FEB 07...	0830	12	350	58	100	25	910	21	18	360	0
JUN 04...	0920	--	370	58	98	30	950	22	13	--	--
AUG 27...	1510	350	190	65	53	15	350	11	12	--	--

DATE	ALKALINITY (MG/L AS CACO3) (00410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	NITROGEN, NITRATE DISSOLVED (MG/L AS N) (00618)	NITROGEN, NITRITE DISSOLVED (MG/L AS N) (00613)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	PHOSPHORUS, DISSOLVED (MG/L AS P) (00666)	ALUMINUM, DISSOLVED (UG/L AS AL) (01106)
FEB 07...	300	250	.8	31	2820	1.0	.07	1.1	3.4	0
JUN 04...	310	250	.6	16	2950	--	--	--	1.8	--
AUG 27...	130	140	.7	17	1160	1.3	.32	1.6	5.3	30

DATE	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BARIUM, DISSOLVED (UG/L AS BA) (01005)	BERYLLIUM, DISSOLVED (UG/L AS BE) (01010)	BORON, DISSOLVED (UG/L AS B) (01020)	CHROMIUM, HEXAVALENT, DIS. (UG/L AS CR) (01032)	COBALT, DISSOLVED (UG/L AS CO) (01035)	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, DISSOLVED (UG/L AS FE) (01046)	LITHIUM DISSOLVED (UG/L AS LI) (01130)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)
FEB 07...	4	0	0	450	0	1	10	40	100	320
JUN 04...	--	--	--	420	--	--	--	20	--	560
AUG 27...	5	0	0	220	0	2	7	120	40	10

DATE	MERCURY DISSOLVED (UG/L AS HG) (71890)	MOLYBDENUM, DISSOLVED (UG/L AS MO) (01060)	NICKEL, DISSOLVED (UG/L AS NI) (01065)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	SILVER, DISSOLVED (UG/L AS AG) (01075)	STRONTIUM, DISSOLVED (UG/L AS SR) (01080)	VANADIUM, DISSOLVED (UG/L AS V) (01085)	ZINC, DISSOLVED (UG/L AS ZN) (01090)	CYANIDE TOTAL (MG/L AS CN) (00720)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L) (38260)
FEB 07...	.1	4	10	2	0	910	--	50	.01	1.0
JUN 04...	--	--	--	--	--	--	--	--	--	--
AUG 27...	.2	2	6	1	0	420	10	10	--	--

06803500 SALT CREEK AT LINCOLN, NE--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2900	4400	4500	5010	4580	687	1570	2680	3920	1590	3050	4450
2	3350	4550	6100	5210	4730	672	1750	375	4730	1940	3160	4780
3	4190	4420	4990	5200	4500	238	1940	699	5100	2450	3200	4790
4	4300	4210	4850	5430	4700	308	2130	1080	4930	2660	3390	4190
5	5100	5240	4950	5200	4900	557	2200	1280	4770	1650	4100	4440
6	5390	4410	4150	5170	5000	460	2350	1560	4590	1960	3900	4700
7	5300	4380	5100	5400	5090	292	2590	1760	4410	2590	5600	4870
8	5200	4700	5450	5220	4690	468	2500	1790	4270	2880	4250	4980
9	5170	5050	5500	5450	4980	563	2730	1890	4180	3070	4250	5710
10	4980	5390	5900	5200	4670	563	2860	2220	4590	3210	4090	5090
11	5500	5190	5400	5500	4600	768	2700	2420	4600	3450	5100	5500
12	5680	3890	5300	5300	4900	760	2690	2720	4590	2420	5590	5800
13	5600	5380	4750	4850	5090	759	2690	2840	5100	2930	5250	5500
14	5490	4980	4900	5150	5090	944	2890	2830	4690	3470	4530	5770
15	4600	4790	4850	5250	4700	1240	3050	2940	4950	527	4940	5340
16	3700	3380	4300	4950	5190	1480	3160	3280	4770	899	5460	5500
17	3670	4410	4900	5050	4780	1500	3250	3290	5520	1290	5390	5800
18	4190	4480	5150	4900	4700	1390	3300	3380	5000	1750	5440	6350
19	4300	4910	4650	4400	4580	1300	3390	3580	4820	2100	5300	6100
20	4700	5390	4350	4150	4690	923	3000	3510	4700	2340	5390	1820
21	4990	5500	4620	4300	4330	845	3120	3650	5190	2690	2650	4730
22	4530	5570	4820	3720	3480	480	3340	3760	4510	2890	4610	5230
23	4000	5920	4750	4300	3230	305	3500	3620	3400	2690	5520	6100
24	4380	4920	6000	4650	2700	542	3590	3880	4500	2350	5500	5690
25	5000	4930	5400	4550	2430	748	745	4070	4120	2130	5780	5690
26	5000	3590	5620	4650	2300	898	1670	3970	4090	2800	2430	5490
27	5090	3610	5370	4300	1570	1040	2070	4320	4540	3160	2570	5500
28	4200	4050	5530	4100	958	1170	2400	4480	578	3710	3300	1590
29	4480	3690	4990	4350	---	1310	2400	4280	871	4000	3720	1540
30	4300	4410	5100	4300	---	1460	2430	4180	1040	3590	4080	1550
31	4900	---	4870	4700	---	1770	---	4060	---	2650	4200	---

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21.0	16.5	8.0	3.5	4.5	2.0	5.5	19.0	21.0	24.0	28.0	23.5
2	20.0	19.0	5.5	3.5	4.5	3.5	6.5	12.0	24.5	23.5	26.5	28.0
3	20.0	20.0	4.5	3.0	4.5	.0	6.5	13.5	24.5	28.0	30.0	26.5
4	19.0	19.0	6.5	3.0	4.5	1.0	5.5	15.5	24.5	23.5	26.5	26.5
5	16.5	15.5	5.5	3.5	4.5	2.0	8.0	16.5	23.5	21.0	26.5	26.5
6	18.0	15.5	4.5	3.5	4.5	3.5	10.0	19.0	26.0	19.0	29.0	26.0
7	19.0	15.5	4.5	4.0	4.5	1.0	14.5	21.0	27.0	21.0	30.0	25.5
8	20.0	16.5	4.5	4.5	4.5	3.5	10.0	16.5	22.0	22.0	29.0	25.5
9	21.0	16.5	5.5	5.5	4.5	4.5	11.0	14.5	18.0	24.5	26.5	24.5
10	20.5	14.5	6.5	5.5	6.5	3.5	10.0	11.0	21.0	26.5	23.5	28.5
11	20.0	11.0	6.5	5.5	6.5	6.5	10.0	15.5	24.5	27.0	25.5	28.5
12	19.0	12.0	8.0	5.5	4.5	8.0	12.0	18.0	25.5	29.0	24.5	20.0
13	16.5	13.5	6.5	4.5	5.5	5.5	14.5	20.0	26.5	28.0	23.5	21.0
14	18.0	11.0	8.0	4.5	6.5	6.5	16.5	20.0	26.5	26.5	21.0	21.0
15	15.5	11.0	8.0	4.5	3.5	6.5	18.0	21.0	26.5	23.5	20.0	24.5
16	16.5	10.0	9.0	5.5	2.0	10.0	19.0	22.0	25.5	24.5	21.0	24.5
17	19.0	11.0	8.0	5.5	4.5	9.0	19.0	21.0	21.0	25.5	26.5	23.5
18	16.5	10.0	8.0	5.5	6.5	10.0	18.0	19.0	24.5	26.0	26.5	23.5
19	19.0	8.0	9.0	8.0	5.5	8.0	20.0	21.0	22.0	26.5	29.0	23.5
20	20.0	6.5	8.0	8.0	6.5	9.0	16.5	19.0	24.5	27.0	28.0	22.0
21	21.0	8.0	8.0	8.0	6.5	8.0	20.0	22.0	25.5	26.5	25.5	21.0
22	13.5	8.0	8.0	9.0	5.5	6.5	20.0	22.0	24.5	28.0	26.5	22.0
23	15.5	9.0	8.0	4.5	4.5	4.5	20.0	19.0	21.0	22.0	24.5	22.0
24	15.5	10.0	8.5	4.5	4.5	4.5	19.0	21.0	23.5	25.5	25.5	22.0
25	14.5	9.0	8.0	6.5	4.5	6.5	13.5	21.0	21.0	26.5	26.5	23.5
26	15.5	5.5	3.5	5.5	4.5	6.5	16.5	21.0	25.5	28.0	21.0	23.5
27	15.5	9.0	4.0	5.5	4.5	6.5	15.5	24.5	25.5	29.0	22.0	24.5
28	16.5	8.0	4.0	5.5	1.0	11.0	15.5	24.5	23.5	26.5	26.5	22.0
29	18.0	9.0	3.5	4.5	---	13.5	15.5	24.5	24.0	28.0	28.0	23.5
30	16.5	9.0	3.5	4.5	---	9.0	18.0	19.0	24.0	26.5	29.0	23.5
31	15.5	---	3.0	4.5	---	11.0	---	20.0	---	23.5	28.0	---

06803510 LITTLE SALT CREEK NEAR LINCOLN, NE

LOCATION.--Lat 40°53'36", long 96°40'52", in NW1/4SW1/4 sec.30, T.11 N., R.7 E., Lancaster County, Hydrologic Unit 10200203, on left bank 10 ft (3 m) downstream from county road bridge and 0.4 mi (0.6 km) north of intersection of Interstate Highway 80 and North 27th Street north of Lincoln.

DRAINAGE AREA.--43.6 mi² (112.9 km²).

PERIOD OF RECORD.--January 1969 to current year.

REVISED RECORDS.--WDR NE-77-1: 1969-1973(M).

GAGE.--Water-stage recorder. Datum of gage is 1,117.73 ft (340.684 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair except those for winter period, which are poor.

AVERAGE DISCHARGE.--10 years, 11.5 ft³/s (0.326 m³/s), 8,330 acre-ft/yr (10.3 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,320 ft³/s (94.0 m³/s) May 2, 1979, gage height, 11.45 ft (3.490 m); maximum gage height, 13.38 ft (4.078 m) Oct. 11, 1973, backwater from Salt Creek; minimum daily discharge, 0.20 ft³/s (0.006 m³/s) Sept. 29, 30, 1969.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 500 ft³/s (14.2 m³/s) and maximum(*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Mar. 2	2400	3280	92.9	11.40	3.475	May 2	0300	*3320	94.0	11.45	3.490
Mar. 6	1900	1400	39.6	8.41	2.563	June 28	0700	917	26.0	7.21	2.198
Mar. 18	1330	1720	48.7	9.04	2.755	July 15	0500	2710	76.7	10.58	3.225
Mar. 22	1700	648	18.4	6.34	1.932						

Minimum daily discharge, 0.79 ft³/s (0.022 m³/s) Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.9	4.6	5.5	2.8	4.5	31	14	9.2	5.3	6.0	4.8	3.1
2	3.9	4.6	5.2	3.0	4.8	735	19	803	4.9	5.6	4.3	3.0
3	3.0	4.6	5.4	3.3	4.5	894	15	40	4.8	4.9	4.4	2.8
4	1.6	4.3	5.6	3.0	4.3	130	13	23	4.7	4.7	4.2	2.8
5	1.6	4.3	5.7	2.7	4.5	54	12	18	4.4	5.8	4.1	2.8
6	5.9	4.1	5.4	2.9	5.6	406	10	15	4.1	5.8	3.4	3.0
7	3.9	3.9	5.2	2.7	3.5	199	9.8	13	4.1	5.6	3.3	3.0
8	3.9	3.9	4.6	2.6	3.3	47	9.5	12	4.0	5.4	3.3	3.0
9	3.8	3.9	4.7	2.9	3.5	86	9.2	11	5.3	5.1	3.4	2.8
10	3.6	3.9	4.8	3.1	3.8	63	8.9	11	5.7	4.7	5.7	2.7
11	3.6	3.9	5.0	3.3	3.9	77	10	9.8	4.6	4.1	3.5	2.7
12	3.6	3.8	5.0	3.4	4.1	90	12	9.2	3.8	3.7	3.1	2.8
13	3.8	4.3	4.7	3.2	3.6	66	10	8.4	3.9	3.3	3.1	3.1
14	4.1	4.1	4.4	3.0	3.8	29	8.4	7.8	3.7	2.3	9.7	2.6
15	3.9	3.6	4.4	3.8	3.9	17	7.8	7.8	3.7	532	4.8	2.4
16	3.8	3.9	4.1	3.8	3.0	14	7.5	7.9	4.2	26	3.9	2.5
17	3.9	5.2	4.0	4.0	3.8	18	7.3	7.8	4.0	16	3.7	2.3
18	3.9	5.5	3.9	5.0	4.4	565	7.3	7.3	3.9	9.5	3.4	2.2
19	3.9	4.1	4.3	5.6	5.0	63	7.3	7.3	4.0	6.8	3.1	1.2
20	3.9	3.9	4.2	4.8	4.6	27	14	7.0	4.7	6.0	3.0	.97
21	4.1	3.8	4.1	4.8	4.3	21	9.5	6.7	4.4	5.8	3.0	1.2
22	8.5	3.8	3.9	5.2	5.7	250	7.8	6.7	4.5	6.0	3.0	2.0
23	6.9	3.9	3.6	5.6	6.2	146	7.0	6.4	7.7	5.6	3.0	1.1
24	4.6	4.1	3.3	5.8	7.0	26	6.8	6.0	6.0	6.9	3.1	1.6
25	4.1	5.0	4.0	6.0	9.6	18	30	6.0	5.3	7.0	4.0	.91
26	4.1	6.4	3.7	5.5	12	15	18	5.8	5.1	5.6	15	.91
27	4.1	5.8	3.5	5.8	24	13	10	5.6	18	5.1	6.4	.91
28	3.9	5.6	3.5	5.2	66	13	8.6	5.4	204	5.2	4.4	.85
29	3.9	5.7	3.2	4.5	---	12	17	5.1	13	5.1	3.9	1.0
30	3.9	6.2	3.0	5.0	---	12	9.5	5.4	7.0	5.1	3.7	.79
31	4.1	---	2.9	4.0	---	11	---	5.4	---	4.8	3.6	---
TOTAL	125.7	134.7	134.8	126.3	217.2	4148	336.2	1100.0	362.8	725.5	135.3	63.04
MEAN	4.05	4.49	4.35	4.07	7.76	134	11.2	35.5	12.1	23.4	4.36	2.10
MAX	8.5	6.4	5.7	6.0	66	894	30	803	204	532	15	3.1
MIN	1.6	3.6	2.9	2.6	3.0	11	6.8	5.1	3.7	2.3	3.0	.79
AC-FT	249	267	267	251	431	8230	667	2180	720	1440	268	125

CAL YR 1978 TOTAL 6239.10 MEAN 17.1 MAX 528 MIN 1.6 AC-FT 12380
WTR YR 1979 TOTAL 7609.54 MEAN 20.8 MAX 894 MIN .79 AC-FT 15090

06803520 STEVENS CREEK NEAR LINCOLN, NE

LOCATION.--Lat 40°51'25", long 96°35'42", in NW1/4NE1/4 sec.11, T.10 N., R.7 E., Lancaster County, Hydrologic Unit 10200203, on left bank 20 ft (6 m) upstream from county road bridge on Havelock Avenue and 1.6 mi (2.6 km) east of 70th Street at east edge of Lincoln.

DRAINAGE AREA.--47.8 mi² (123.8 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1968 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,125.57 ft (343.074 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for winter period, which are poor.

AVERAGE DISCHARGE.--11 years, 13.6 ft³/s (0.385 m³/s), 9,850 acre-ft/yr (12.1 hm³/yr); median of yearly mean discharges, 8.7 ft³/s (0.246 m³/s), 6,300 acre-ft/yr (7.77 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,120 ft³/s (88.4 m³/s) July 22, 1978, gage height, 17.01 ft (5.185 m) on basis of indirect measurement of peak flow; maximum gage height, 17.03 ft (5.191 m) Oct. 10, 1974; no flow July 31, Aug. 2-4, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 500 ft³/s (14.2 m³/s) and maximum (*):

Date	Time	Discharge		Gage height		Date	Time	Discharge		Gage height	
		(ft³/s)	(m³/s)	(ft)	(m)			(ft³/s)	(m³/s)	(ft)	(m)
Mar. 3	0430	*2600	17.0	15.99	4.874	b	----	unknown		unknown	
Mar. 6	2100	1200	5.7	11.22	3.420	Apr. 25	0730	684	19.4	8.45	2.576
a	----	unknown		unknown		May 2	1100	520	14.7	7.46	2.274

a Sometime during period Mar. 17-19.

b Sometime during period Mar. 21-23.

Minimum discharge, 0.46 ft³/s (0.013 m³/s) Sept. 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	1.8	3.7	1.9	1.6	90	13	11	3.8	1.9	2.2	.60
2	1.1	2.1	3.1	1.9	2.2	545	19	252	3.5	1.8	9.1	.82
3	1.2	1.7	2.5	2.0	2.2	1390	16	62	3.4	1.9	5.1	.68
4	1.0	1.9	2.2	2.0	2.1	71	14	35	3.1	1.9	2.0	.55
5	1.1	1.8	2.5	2.0	2.0	62	13	25	2.9	2.8	1.5	.59
6	1.0	1.8	2.6	2.1	2.3	402	9.7	21	2.7	2.9	1.3	.59
7	1.1	1.8	2.1	2.1	2.1	100	9.8	18	2.5	2.4	1.1	.59
8	1.1	2.1	1.9	2.1	2.1	50	9.5	15	3.0	2.3	1.0	.52
9	1.2	1.9	1.8	2.2	2.0	60	8.4	14	4.0	2.3	.95	.52
10	1.2	1.9	1.7	2.2	2.2	60	8.3	13	4.4	2.2	1.1	.62
11	1.2	2.0	1.9	2.2	2.3	50	10	13	3.7	1.9	3.2	.55
12	1.2	1.9	2.2	2.2	2.2	45	13	11	2.7	1.6	1.4	.62
13	1.2	2.1	2.6	2.0	2.4	40	10	10	2.4	1.4	1.0	.76
14	1.5	2.1	2.6	1.9	2.4	40	8.2	9.5	2.1	1.2	1.1	.62
15	1.2	2.0	2.9	2.4	2.2	40	8.3	8.8	1.9	133	1.1	.59
16	1.1	2.1	2.7	2.5	2.0	40	7.1	7.9	2.5	24	1.1	.62
17	.98	2.8	2.3	2.5	2.3	40	7.0	7.1	2.2	6.8	1.0	.59
18	1.1	3.2	2.5	2.5	2.5	800	6.5	6.8	2.3	3.7	1.1	.55
19	1.3	2.6	2.8	2.7	2.7	300	6.2	7.8	2.1	2.9	1.0	.59
20	1.4	2.2	2.9	2.7	2.4	100	7.4	7.4	2.0	2.5	.95	.55
21	1.5	2.0	2.7	2.7	2.4	70	7.3	6.3	2.0	2.4	1.0	.46
22	2.3	2.0	2.7	2.8	4.0	90	6.0	5.7	2.1	2.2	1.1	.49
23	2.9	2.3	2.7	2.9	6.0	1000	5.4	5.3	4.9	2.0	1.2	.52
24	2.0	2.5	2.4	2.5	8.0	250	5.3	5.6	4.1	2.6	1.1	.59
25	1.6	2.6	2.3	2.8	10	100	173	5.6	2.5	3.4	2.5	.52
26	1.6	3.9	2.2	2.6	16	34	38	5.6	2.1	2.7	2.0	.49
27	1.6	3.8	2.1	2.4	25	21	20	4.9	2.0	2.2	1.2	.52
28	1.7	3.3	2.3	2.2	120	19	13	4.5	4.1	2.1	1.0	.65
29	1.6	3.2	2.5	2.0	---	17	19	4.3	2.8	2.1	.68	.49
30	1.8	3.6	1.9	2.1	---	14	14	4.1	2.4	2.3	.80	.82
31	1.9	---	1.8	1.9	---	11	---	4.0	---	3.5	.76	---
TOTAL	43.88	71.0	75.1	71.0	235.6	5951	505.4	611.2	86.2	228.9	51.72	17.75
MEAN	1.42	2.37	2.42	2.29	8.41	192	16.8	19.7	2.87	7.38	1.67	.59
MAX	2.9	3.9	3.7	2.9	120	1390	173	252	4.9	133	9.1	.82
MIN	.98	1.7	1.7	1.9	1.6	11	5.3	4.0	1.9	1.2	.68	.46
AC-FT	87	141	149	141	467	11800	1000	1210	171	454	103	35

CAL YR 1978 TOTAL 7324.46 MEAN 20.1 MAX 1360 MIN .60 AC-FT 14530
WTR YR 1979 TOTAL 7948.75 MEAN 21.8 MAX 1390 MIN .46 AC-FT 15770

06803520 STEVENS CREEK NEAR LINCOLN, NE.--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water year 1979.

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	TURBIDITY (JTU) (00070)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L) (00310)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)
NOV 16...	1030	3.0	739	7.8	2.5	15	11.2	2.4	K50	K11000	320	0
FEB 05...	1400	2.1	710	7.8	.5	15	14.4	4.9	K20	K60	310	50
JUN 04...	1200	3.0	734	8.0	22.0	25	7.2	4.6	300	284	300	10
AUG 28...	1115	1.0	625	7.8	20.0	40	4.9	4.0	1200	K2700	240	0

K Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	ALKALINITY (MG/L AS CACO3) (00410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	SOLIDS, DISSOLVED (TONS PER AC-FT) (70303)
NOV 16...	90	23	47	1.1	6.0	340	65	15	.3	20	471	.64
FEB 05...	88	22	43	1.1	3.9	260	63	15	.2	29	422	.57
JUN 04...	84	22	45	1.1	5.2	290	72	14	.4	15	433	.59
AUG 28...	67	17	39	1.1	5.9	250	67	15	.3	18	380	.52

DATE	SOLIDS, DISSOLVED (TONS PER DAY) (70302)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, DISSOLVED (MG/L AS P) (00666)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)
NOV 16...	3.82	1.1	.05	.48	.53	1.6	.32	.22	110	20	430
FEB 05...	2.39	2.4	.41	.44	.85	3.3	.24	.18	90	20	1000
JUN 04...	3.53	1.2	.01	2.1	2.1	3.3	.31	.23	100	10	500
AUG 28...	1.83	1.3	.15	4.4	4.5	5.8	.30	.18	80	20	470

06803525 SALT CREEK BELOW STEVENS CREEK, NEAR WAVERLY, NE

LOCATION.--Lat 40°54'18", long 96°35'09", in NW1/4SW1/4 sec.24, T.11 N., R.7 E., Lancaster County, Hydrologic Unit 10200203, at bridge 0.5 miles north of Interstate Highway 80 and 3 miles southwest of Waverly.

DRAINAGE AREA.--815 sq mi.

PERIOD OF RECORD.--Water year 1971 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (JTU) (00070)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)
OCT											
20...	1245	84	7250	7.6	14.0	--	5.0	8.2	170	8.8	100
NOV											
16...	1220	86	2020	7.8	5.5	--	10	8.7	3	11	K60
DEC											
13...	1410	84	6500	7.7	5.0	--	4.0	10.4	110	8.8	K30
JAN											
09...	1015	74	7380	7.6	.5	--	13	11.0	86	33	K110
FEB											
07...	1145	77	5860	7.3	.0	--	13	7.9	140	28	3400
MAR											
07...	1230	5000	280	7.3	1.5	--	970	10.9	130	15	733
APR											
04...	1000	300	2400	8.0	8.0	--	58	11.5	42	5.4	K100
MAY											
01...	1140	264	3250	7.9	14.5	65	23	7.8	47	7.0	967
JUN											
01...	1000	114	5250	7.9	16.0	--	8.0	6.9	47	9.3	450
26...	1400	100	5900	8.0	26.5	--	24	6.7	56	6.3	K2600
JUL											
26...	1005	254	3130	7.8	23.5	--	66	6.2	48	20	1500
AUG											
28...	1040	143	3300	7.8	20.0	--	400	5.5	--	19	9700
SEP											
21...	1440	80	6860	7.5	22.5	--	10	--	73	6.4	--

DATE	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	CALCIUM TOTAL RECOV-ERABLE (MG/L AS CA) (00916)	MAGNE-SIUM, TOTAL RECOV-ERABLE (MG/L AS MG) (00927)	SODIUM, TOTAL RECOV-ERABLE (MG/L AS NA) (00929)	POTAS-SIUM, TOTAL RECOV-ERABLE (MG/L AS K) (00937)	BICAR-BONATE (MG/L AS HCO3) (00440)	CAR-BONATE (MG/L AS CO3) (00445)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)
OCT										
20...	204	88	28	1400	19	356	0	292	360	2100
NOV										
16...	208	86	30	1300	16	388	0	318	340	1900
DEC										
13...	168	83	30	1400	18	384	0	300	360	1900
JAN										
09...	1420	87	32	1900	22	408	--	340	390	2000
FEB										
07...	8500	110	30	1300	19	408	0	335	330	1400
MAR										
07...	K50000	36	15	23	13	72	0	66	22	39
APR										
04...	K370	73	21	390	7.0	--	--	240	130	530
MAY										
01...	320	--	--	--	13	312	0	250	210	760
JUN										
01...	176	88	27	980	15	362	0	297	260	1400
26...	340	88	27	1100	14	337	0	280	320	1600
JUL										
26...	960	64	20	490	12	260	--	210	190	990
AUG										
28...	7800	--	--	--	--	224	0	184	--	--
SEP										
21...	--	79	27	1200	21	--	--	260	320	1900

K Results based on colony count outside the acceptable range (non-ideal colony count).

06803525 SALT CREEK BELOW STEVENS CREEK, NEAR WAVERLY, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L) (00500)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)
OCT										
20...	4100	5.58	930	4210	1.1	4.6	.40	5.0	6.1	3.7
NOV										
16...	3800	5.17	882	--	1.4	5.8	.00	5.8	7.2	3.1
DEC										
13...	3970	5.40	900	4010	1.5	5.1	.20	5.3	6.8	3.0
JAN										
09...	4240	5.77	847	4320	1.1	6.9	2.5	9.4	11	4.3
FEB										
07...	3790	5.15	788	--	1.2	7.2	2.1	9.3	11	3.4
MAR										
07...	157	.21	2120	2690	1.1	.78	.52	1.3	2.4	.36
APR										
04...	1320	1.80	1070	1510	1.5	1.3	1.2	2.5	4.0	.84
MAY										
01...	1880	2.56	1340	2000	2.9	.00	.76	.76	3.7	1.1
JUN										
01...	3130	4.26	963	--	1.2	3.3	1.0	4.3	5.5	2.2
26...	3490	4.75	942	3710	2.6	.83	2.0	2.8	5.4	.84
JUL										
26...	1720	2.34	1180	2050	1.3	.89	3.8	4.7	6.0	.62
AUG										
28...	--	--	--	--	--	--	--	--	--	--
SEP										
21...	3890	5.29	840	3920	.90	3.5	.90	4.4	5.3	2.4

DATE	TIME	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, SUS-PENDED TOTAL (MG/L AS MG) (00926)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)
NOV									
16...	1220	360	42	95	--	31	1500	34	17
FEB									
07...	1145	430	95	120	--	31	1300	27	3.8
JUN									
01...	1000	250	0	91	21	6.0	1000	27	15

06803525 SALT CREEK BELOW STEVENS CREEK, NEAR WAVERLY, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P) (00666)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)
NOV 16...	.7	22	4100	2.9	670	50	350	2
FEB 07...	.7	30	3420	3.1	600	40	440	2
JUN 01...	.7	17	2970	2.0	490	20	550	2

DATE	TIME	PER-THANE TOTAL (UG/L) (39034)	PCB, TOTAL (UG/L) (39516)	NAPH-THA-LENES, POLY-CHLOR. TOTAL (UG/L) (39250)	ALDRIN, TOTAL (UG/L) (39330)	CHLOR-DANE, TOTAL (UG/L) (39350)	DDD, TOTAL (UG/L) (39360)	DDE, TOTAL (UG/L) (39365)	DDT, TOTAL (UG/L) (39370)
NOV 16...	1220	.00	.0	.00	.00	.0	.00	.00	.00
FEB 07...	1145	.00	.0	--	.00	.0	.00	.00	.00
JUN 01...	1000	.00	.0	--	.00	.1	.00	.00	.00
AUG 28...	1040	.00	.0	--	.00	.0	.00	.00	.00

DATE	DI-AZINON, TOTAL (UG/L) (39570)	DI-ELDRIN TOTAL (UG/L) (39380)	ENDO-SULFAN, TOTAL (UG/L) (39388)	ENDRIN, TOTAL (UG/L) (39390)	ETHION, TOTAL (UG/L) (39398)	HEPTA-CHLOR, TOTAL (UG/L) (39410)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L) (39420)	LINDANE TOTAL (UG/L) (39340)	MALA-THION, TOTAL (UG/L) (39530)
NOV 16...	.08	.00	.00	.00	.00	.00	.00	.03	.00
FEB 07...	.07	.00	.00	.00	.00	.00	.00	.05	.00
JUN 01...	.28	.00	.00	.00	.00	.00	.00	.01	.02
AUG 28...	.06	.00	.00	.00	.00	.00	.00	.01	.01

DATE	METHYL PARA-THION, TOTAL (UG/L) (39600)	METHYL TRI-THION, TOTAL (UG/L) (39790)	PARA-THION, TOTAL (UG/L) (39540)	TOX-APHENE, TOTAL (UG/L) (39400)	TOTAL TRI-THION (UG/L) (39786)	2,4-D, TOTAL (UG/L) (39730)	2,4,5-T TOTAL (UG/L) (39740)	MIREX, TOTAL (UG/L) (39755)	SILVEX, TOTAL (UG/L) (39760)
NOV 16...	.00	.00	.00	0	.00	.09	.00	.00	.00
FEB 07...	.00	.00	.00	0	.00	.07	.01	.00	.00
JUN 01...	.00	.00	.00	0	.00	.00	.00	.00	.00
AUG 28...	.00	.00	.00	0	.00	.00	.00	.00	.00

06803530 ROCK CREEK NEAR CERESCO, NE

LOCATION.--Lat 41°00'56", long 96°32'39", in NE1/4NE1/4 sec.17, T.12 N., R.8 E., Lancaster County, Hydrologic Unit 10200203, on right bank 10 ft (3 m) downstream from bridge on east-west county road and 5.7 mi (9.2 km) southeast of Ceresco.

DRAINAGE AREA.--119 mi² (308 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1970 to current year.

REVISED RECORDS.--WDR NE-76-1: 1975(M).

GAGE.--Water-stage recorder. Datum of gage is 1,115.18 ft (339.907 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair except those for winter period, which are poor.

AVERAGE DISCHARGE.--9 years, 27.5 ft³/s (0.779 m³/s), 19,920 acre-ft/yr (24.6 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,120 ft³/s (117 m³/s) May 1, 1972, gage height, 14.2 ft (4.33 m), from floodmark; minimum daily, 0.25 ft³/s (0.007 m³/s) July 13, 1976.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 600 ft³/s (17.0 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Mar. 3	0200	*3000	85.0	13.37	4.075	Mar. 12	2330	918	26.0	6.23	1.899
Mar. 7	0130	1860	52.7	9.76	2.975	Mar. 18	1400	2230	63.2	11.00	3.353
Mar. 9	2330	677	19.2	5.18	1.579	May 3	0730	2240	63.4	11.04	3.365

Minimum discharge, 3.7 ft³/s (0.10 m³/s) Aug. 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	9.1	11	5.8	5.6	30	25	24	11	9.7	8.0	6.2
2	10	9.1	10	6.0	7.2	300	29	1270	9.8	9.9	8.7	6.5
3	10	9.1	12	6.8	7.0	1680	28	130	10	9.6	9.1	6.7
4	10	9.5	12	6.6	6.8	186	26	59	11	14	8.5	6.4
5	9.9	9.5	12	6.2	6.6	172	24	43	10	33	8.0	6.5
6	9.9	9.5	11	7.0	9.0	561	20	35	10	14	7.8	6.3
7	9.4	9.5	9.6	7.0	8.0	911	20	30	11	13	6.8	6.3
8	9.5	9.9	8.0	6.4	7.8	218	19	25	12	13	6.2	6.4
9	9.7	9.9	8.2	6.8	7.4	229	18	24	14	14	5.3	6.4
10	9.9	9.9	8.8	7.4	8.0	323	18	26	17	12	7.5	6.6
11	10	9.9	9.6	8.2	8.4	276	27	23	13	11	6.1	6.7
12	10	10	10	8.8	8.0	492	33	20	11	11	5.7	6.9
13	9.9	11	9.0	7.4	8.2	386	22	19	11	10	5.7	8.1
14	9.5	11	9.6	6.4	9.0	131	18	17	10	10	8.0	7.3
15	9.5	10	10	7.4	8.4	57	17	16	10	246	7.9	6.9
16	9.5	10	9.0	8.0	7.0	35	16	15	11	28	6.9	6.8
17	9.5	12	8.0	7.6	7.4	71	15	14	10	12	6.8	7.1
18	7.9	12	8.8	8.0	7.8	1120	15	13	10	11	6.5	6.8
19	7.5	10	8.8	8.4	8.4	200	15	15	10	10	6.1	6.3
20	7.1	8.0	7.2	8.2	8.2	90	32	15	11	9.8	5.5	7.7
21	7.1	7.9	7.8	9.4	7.6	40	22	13	10	9.5	5.3	7.8
22	9.9	7.9	7.6	8.8	8.0	200	16	13	11	9.3	5.1	8.0
23	13	7.9	7.0	8.4	7.8	80	14	12	15	9.2	4.3	8.0
24	11	8.6	6.0	6.0	7.4	50	14	12	13	11	3.7	8.8
25	11	9.5	6.8	9.8	7.2	40	79	12	11	12	18	9.4
26	10	9.5	6.6	9.4	7.6	37	54	12	10	9.9	250	8.5
27	9.8	13	6.6	6.6	8.0	34	20	12	12	8.3	55	8.8
28	9.5	11	8.0	8.4	14	30	19	12	180	8.3	9.4	8.6
29	9.5	12	7.4	7.0	---	27	72	12	32	8.7	6.9	8.4
30	9.1	12	6.2	6.4	---	26	25	11	11	8.5	6.8	9.1
31	9.1	---	5.6	7.2	---	24	---	12	---	8.2	6.1	---
TOTAL	297.7	298.2	268.2	238.0	221.8	8056	772	1966	527.8	603.9	511.7	220.3
MEAN	9.60	9.94	8.65	7.68	7.92	260	25.7	63.4	17.6	19.5	16.5	7.34
MAX	13	13	12	9.8	14	1680	79	1270	180	246	250	9.4
MIN	7.1	7.9	5.6	5.8	5.6	24	14	11	9.8	8.2	3.7	6.2
AC-FT	590	591	532	472	440	15980	1530	3900	1050	1200	1010	437

CAL YR 1978 TOTAL 14338.6 MEAN 39.3 MAX 940 MIN 5.6 AC-FT 28440
WTR YR 1979 TOTAL 13981.6 MEAN 38.3 MAX 1680 MIN 3.7 AC-FT 27730

06803530 ROCK CREEK NEAR CERESCO, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1970-1979.

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (JTU) (00070)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)
NOV												
13...	0930	12	1500	7.8	7.0	25	10.6	3.4	867	5100	300	5
FEB												
05...	0915	9.8	1150	7.7	1.0	15	7.0	5.7	K9000	4200	280	27
JUN												
01...	1430	9.7	1040	8.3	20.5	20	10.2	3.1	230	128	250	0
AUG												
28...	1000	10	1040	7.7	19.0	500	6.5	9.0	40000	35000	160	37

K Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)
NOV												
13...	82	22	220	5.6	7.8	290	110	260	.4	22	899	1.22
FEB												
05...	78	20	150	3.9	7.1	250	110	160	.3	36	713	.97
JUN												
01...	68	19	140	3.9	6.3	270	110	150	.5	20	677	.92
AUG												
28...	43	12	160	5.6	13	120	120	210	.4	15	646	.88

DATE	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P) (00666)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)
NOV											
13...	29.1	.87	.10	.42	.52	1.4	.28	.19	260	20	480
FEB											
05...	18.9	1.9	.58	.52	1.1	3.0	.34	.28	230	10	940
JUN											
01...	17.8	1.2	.06	.85	.91	2.1	.32	.23	210	10	150
AUG											
28...	17.4	1.3	.38	3.5	3.9	5.2	1.0	--	240	340	--

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70344)	SED. SUSP. FALL DIAM. % FINER THAN .500 MM (70345)
MAR									
21...	1300	41	9.0	304	34	76	87	99	100

06803555 SALT CREEK AT GREENWOOD, NE

LOCATION.--Lat 40°57'56", long 96°27'01", at center of sec.31, T.12 N., R.9 E., Cass County, Hydrologic Unit 10200203, on right bank just downstream from county road bridge, 0.5 mi (0.8 km) west of Greenwood.

DRAINAGE AREA.--1,051 mi^2 (2,722 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1951 to current year. Records furnished by Corps of Engineers prior to Oct. 1, 1972.

REVISED RECORDS.--WDR NE-71: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,068.14 ft (325.569 m) National Geodetic Vertical Datum of 1929. Prior to Nov. 5, 1964, nonrecording gage at same site and datum.

REMARKS.--Records good except those for winter period, which are poor.

AVERAGE DISCHARGE.--27 years (water years 1953-79), 278 ft^3/s (7.873 m^3/s), 201,400 acre-ft/yr (0.248 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 41,000 ft^3/s (1,160 m^3/s) June 24, 1963, gage height, 23.46 ft (7.151 m); maximum gage height, 23.50 ft (7.163 m) Oct. 11, 1973, from floodmark; minimum daily discharge, 14 ft^3/s (0.40 m^3/s) Jan. 10, 1957.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,000 ft^3/s (85.0 m^3/s) (revised) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Mar. 3	0515	*35500	1010	21.75	6.629	Apr. 25	1100	4050	115	8.46	2.579
Mar. 6	2345	14600	413	a14.81	4.514	May 2	0945	16600	470	15.65	4.770
Mar. 10	0345	3640	103	8.08	2.463	June 28	1745	3350	94.9	7.80	2.377
Mar. 18	1800	15900	450	15.37	4.685	July 15	1315	8140	231	11.57	3.527
Mar. 23	0200	12000	340	13.62	4.151						

Minimum daily discharge, 70 ft^3/s (1.98 m^3/s) Feb. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	122	129	140	92	70	900	628	387	176	424	210	135
2	118	118	100	100	120	3840	734	9490	174	362	201	122
3	116	114	130	120	114	21500	646	3070	128	296	183	112
4	112	112	150	110	104	4180	572	1500	121	267	194	113
5	110	110	155	100	100	2670	538	1050	139	400	170	115
6	112	107	140	110	130	5090	493	834	150	391	150	112
7	110	110	120	100	110	8550	441	687	150	294	145	108
8	109	111	125	90	104	2740	424	636	148	253	136	103
9	106	112	135	100	100	2330	409	636	148	233	135	98
10	109	112	150	104	125	2870	368	547	176	223	220	94
11	106	109	155	110	150	2000	430	502	160	211	161	98
12	109	116	160	116	140	2720	501	429	150	232	133	101
13	109	123	140	90	145	2720	436	398	149	235	125	148
14	109	114	150	80	170	1840	394	386	142	203	191	106
15	120	111	150	110	140	1180	357	365	138	4640	180	99
16	125	113	145	114	110	953	337	314	169	1750	145	94
17	128	112	140	125	130	889	329	283	143	722	136	91
18	122	112	145	140	150	7880	318	271	132	509	131	92
19	119	112	130	160	160	5950	318	260	135	412	142	86
20	113	110	130	150	190	2190	373	226	138	371	131	160
21	107	123	120	145	170	1460	394	195	134	331	158	152
22	196	132	122	155	220	4260	298	187	171	296	182	96
23	204	124	118	135	210	8470	272	177	254	275	132	89
24	142	118	110	116	200	2970	271	175	185	330	138	83
25	129	122	150	140	220	1770	2170	168	151	379	131	85
26	121	125	145	150	320	1380	1090	169	138	291	592	83
27	119	135	140	120	400	1120	569	170	143	233	731	85
28	114	142	155	110	700	1020	441	162	2210	202	255	136
29	112	157	130	94	---	936	572	164	1930	185	178	222
30	107	157	110	100	---	861	449	177	601	179	154	219
31	112	---	100	86	---	675	---	180	---	176	142	---
TOTAL	3747	3602	4190	3572	5002	107914	15572	24195	8883	15305	6012	3437
MEAN	121	120	135	115	179	3481	519	780	296	494	194	115
MAX	204	157	160	160	700	21500	2170	9490	2210	4640	731	222
MIN	106	107	100	80	70	675	271	162	121	176	125	83
AC-FT	7430	7140	8310	7090	9920	214000	30890	47990	17620	30360	11920	6820

CAL YR 1978 TOTAL 153425 MEAN 420 MAX 8090 MIN 76 AC-FT 304300
WTR YR 1979 TOTAL 201431 MEAN 552 MAX 21500 MIN 70 AC-FT 399500

06803555 SALT CREEK AT GREENWOOD, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water year 1971 to current year.

PERIOD OF DAILY RECORD.--
SUSPENDED SEDIMENT DISCHARGE: October 1971 to September 1976 (discontinued).

REMARKS.--Prior to July 1, 1971, sediment records were obtained by the U.S. Corps of Engineers.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SEDIMENT CONCENTRATIONS: Maximum daily, 15,900 mg/L May 18, 1974; minimum daily, 5 mg/L Oct. 9, 1971.
SEDIMENT LOADS: Maximum daily, 492,000 tons (447,000 tonnes) Oct. 11, 1973; minimum daily, 1.0 ton (0.9 tonne) Oct. 9, 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (JTU) (00070)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT										
20...	1000	116	5400	7.8	10.0	10	7.5	7.8	243	600
NOV										
16...	1400	113	5220	7.8	4.5	8	10.0	10	50	K340
DEC										
11...	1500	152	6300	7.6	.5	20	9.4	12	560	K167
JAN										
11...	1510	110	5530	7.3	.5	10	5.8	9.1	K700	640
FEB										
07...	1000	111	6270	7.2	.0	15	9.4	28	480	1950
MAR										
02...	1420	1170	--	--	.5	--	--	--	--	--
07...	1230	6420	230	6.5	1.0	460	9.4	15	1100	K50000
APR										
03...	1100	681	1980	7.9	5.5	70	11.5	7.2	--	K67
MAY										
07...	1400	687	1670	8.0	20.5	75	10.1	11	290	330
JUN										
01...	1200	175	4400	7.9	18.5	10	9.4	11	K190	80
26...	1200	183	4550	8.0	23.5	30	7.5	9.3	1800	540
JUL										
30...	1400	174	4260	8.2	30.0	15	9.0	10	530	110
SEP										
10...	1045	97	7050	8.2	21.0	10	9.0	9.5	K6300	140

K Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)
OCT										
20...	1300	2970	4.04	930	2.0	1.8	2.5	4.3	6.3	2.4
NOV										
16...	1500	--	4.35	976	2.0	2.8	1.4	4.2	6.2	2.9
DEC										
11...	1800	3690	5.02	1510	2.1	3.6	2.0	5.6	7.7	2.5
JAN										
11...	1600	3340	4.54	992	1.7	3.8	1.0	4.8	6.5	2.9
FEB										
07...	1700	--	4.86	1070	1.5	4.7	--	--	--	2.6
MAR										
02...	--	--	--	--	--	--	--	--	--	--
07...	23	116	.16	2010	1.3	.71	4.6	5.3	6.6	.37
APR										
03...	430	1120	1.52	1940	1.8	1.3	1.4	2.7	4.5	.70
MAY										
07...	350	969	1.32	1800	1.9	.56	1.0	1.6	3.5	.82
JUN										
01...	1200	--	3.55	1230	1.9	1.3	1.0	2.3	4.2	1.6
26...	1200	2670	3.63	1030	4.2	.28	1.1	1.4	5.6	.88
JUL										
30...	1200	2490	3.39	1170	2.8	.22	1.3	1.5	4.3	6.0
SEP										
10...	2000	4130	5.62	1080	2.3	.11	.89	1.0	3.3	.12

06803555 SALT CREEK AT GREENWOOD, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)
NOV										
16...	1400	350	88	94	29	1100	25	15	270	270
FEB										
07...	1000	390	80	110	28	1200	26	3.1	310	310
JUN										
01...	1200	380	63	93	27	850	20	13	280	240
JUL										
30...	1400	--	--	--	--	--	--	--	--	--

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NITRATE TOTAL (MG/L AS N) (00620)	NITRO-GEN, NITRITE TOTAL (MG/L AS N) (00615)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P) (00666)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)
NOV									
16...	.6	30	3200	--	--	2.3	570	50	400
FEB									
07...	.6	27	3570	--	--	2.0	530	10	540
JUN									
01...	.6	15	2610	--	--	1.5	420	10	280
JUL									
30...	--	--	--	2.1	.75	--	--	--	--

06803555 SALT CREEK AT GREENWOOD, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)
OCT							
20...	1000	116	10.0	154	48	--	--
NOV							
16...	1330	113	4.5	254	77	--	--
DEC							
11...	1400	152	.5	560	230	--	--
MAR							
02...	1420	1170	.5	2740	8660	19	23
07...	1315	6420	1.0	3550	61500	36	40
APR							
03...	1100	641	5.5	390	675	--	--
MAY							
07...	1255	687	20.5	766	1420	--	--
JUN							
01...	1215	175	18.5	120	57	--	--
26...	1115	143	23.5	164	63	--	--
JUL							
30...	1330	174	30.0	206	97	--	--
SEP							
10...	1115	97	21.0	308	81	--	--

DATE	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70344)	SED. SUSP. FALL DIAM. % FINER THAN .500 MM (70345)	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM (70346)
OCT						
20...	--	--	--	--	--	--
NOV						
16...	--	--	--	--	--	--
DEC						
11...	--	--	--	--	--	--
MAR						
02...	37	91	96	98	100	--
07...	56	--	--	--	--	--
APR						
03...	--	76	87	91	100	--
MAY						
07...	--	40	40	41	65	100
JUN						
01...	--	--	--	--	--	--
26...	--	86	--	--	--	--
JUL						
30...	--	90	--	--	--	--
SEP						
10...	--	95	--	--	--	--

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	NUMBER OF SAM-PLING POINTS (00063)	BED MAT. FALL DIAM. % FINER THAN .062 MM (80158)	BED MAT. FALL DIAM. % FINER THAN .125 MM (80159)	BED MAT. FALL DIAM. % FINER THAN .250 MM (80160)	BED MAT. FALL DIAM. % FINER THAN .500 MM (80161)	BED MAT. FALL DIAM. % FINER THAN 1.00 MM (80162)	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM (80171)	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM (80172)
NOV												
16...	1330	113	5	--	0	8	72	93	99	100	--	--
DEC												
11...	1400	152	5	0	3	10	60	72	86	93	100	--
MAR												
02...	1420	1170	5	--	0	12	81	93	99	100	--	--
07...	1315	6420	5	0	2	24	65	92	100	--	--	--
APR												
03...	1100	641	5	0	3	16	90	98	99	100	--	--
MAY												
07...	1255	687	3	--	0	8	60	91	100	--	--	--
JUN												
01...	1215	175	5	--	0	5	22	39	98	99	99	100
26...	1115	143	9	--	0	26	86	98	100	--	--	--
JUL												
30...	1330	174	5	--	0	4	65	95	97	99	100	--
SEP												
10...	1115	97	5	9	35	47	90	99	100	--	--	--

06804000 WAHOO CREEK AT ITHACA, NE

LOCATION.--Lat 41°08'40", long 96°32'10", in NW1/4NW1/4 sec.33, T.14 N., R.8 E., Saunders County, Hydrologic Unit 10200203, on right bank 16 ft (5 m) downstream from bridge on State Highway 63 and 0.5 mi (0.8 km) south of Ithaca.

DRAINAGE AREA.--271 mi² (702 km²), of which 268 mi² (694 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--October 1949 to current year.

REVISED RECORDS.--WDR NE-71-1: Drainage area. WDR NE-78-1: 1977(P).

GAGE.--Water-stage recorder. Datum of gage is 1,110.48 ft (338.474 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 27, 1959, nonrecording gages at same site and datum. Oct. 28, 1959, to Feb. 22, 1961, nonrecording gage at site 1.5 mi (2.4 km) upstream at datum 8.21 ft (2.502 m) higher.

REMARKS.--Records good except those for winter period, which are poor.

AVERAGE DISCHARGE.--30 years, 76.7 ft³/s (2.172 m³/s), 55,570 acre~~-ft/yr~~ (68.5 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 77,400 ft³/s (2,190 m³/s) June 24, 1963, gage height, 22.93 ft (6.989 m), from rating curve extended above 13,000 ft³/s (368 m³/s) on basis of indirect measurement of peak flow; minimum daily, 3.3 ft³/s (0.093 m³/s) June 11, 1955.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known since about 1910, 23.22 ft (7.077 m), from floodmark, Aug. 2, 1959, discharge, 45,300 ft³/s (1,280 m³/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,500 ft³/s (42.5 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Mar. 3	0915	2560	72.5	17.21	5.246	Mar. 18	2000	2090	59.2	15.91	4.849
Mar. 7	1000	2110	59.8	15.97	4.868	Mar. 23	0330	1530	43.3	14.14	4.310
Mar. 13	0700	2470	70.0	16.96	5.169	May 21	1600	*3020	85.5	18.33	5.587

Minimum daily discharge, 9.0 ft³/s (0.25 m³/s) Feb. 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	25	25	17	15	49	72	60	44	34	25	18
2	21	25	18	21	21	259	83	1570	40	34	25	18
3	21	26	19	23	19	1850	80	309	40	34	26	18
4	21	25	24	22	17	261	73	152	39	33	26	16
5	21	25	29	19	21	195	70	124	39	39	25	16
6	22	25	25	23	25	447	63	126	40	48	24	16
7	22	24	20	21	21	1710	59	102	41	37	23	16
8	22	24	17	20	19	817	60	92	42	37	22	16
9	22	25	18	22	17	451	57	86	43	36	21	16
10	22	25	23	24	21	635	55	88	44	34	21	16
11	22	25	24	25	23	572	60	92	45	33	21	16
12	22	25	25	26	22	1340	74	90	41	32	22	16
13	22	27	24	22	25	1750	63	82	38	31	22	19
14	23	27	24	18	29	757	53	72	37	32	22	19
15	23	25	23	25	15	303	49	66	36	341	23	18
16	23	25	23	27	9.0	183	46	62	36	130	23	18
17	23	25	22	26	10	338	45	61	40	43	23	18
18	24	25	24	32	12	1140	44	59	38	34	22	18
19	23	25	23	34	11	720	43	61	37	32	21	17
20	24	23	22	33	15	160	334	61	42	29	22	17
21	24	24	23	34	14	116	148	56	45	28	22	17
22	27	25	23	37	18	328	76	53	39	28	24	17
23	28	25	24	29	23	829	64	51	81	27	23	17
24	27	25	19	25	22	174	59	49	58	28	21	16
25	26	26	22	29	26	124	110	48	42	29	22	16
26	25	26	21	31	32	108	116	48	38	28	48	17
27	24	26	20	30	40	93	72	47	37	27	174	17
28	24	23	23	28	45	94	64	46	54	26	32	17
29	24	25	19	25	---	86	83	45	88	26	22	17
30	24	25	17	28	---	83	76	43	40	28	20	17
31	24	---	15	19	---	74	---	42	---	26	19	---
TOTAL	722	751	678	795	587.0	16046	2351	3943	1324	1404	886	510
MEAN	23.3	25.0	21.9	25.6	21.0	518	78.4	127	44.1	45.3	28.6	17.0
MAX	28	27	29	37	45	1850	334	1570	88	341	174	19
MIN	21	23	15	17	9.0	49	43	42	36	26	19	16
AC-FT	1430	1490	1340	1580	1160	31830	4660	7820	2630	2780	1760	1010

CAL YR 1978 TOTAL 41588.0 MEAN 114 MAX 2840 MIN 15 AC-FT 82490
WTR YR 1979 TOTAL 29997.0 MEAN 82.2 MAX 1850 MIN 9.0 AC-FT 59500

06805500 PLATTE RIVER AT LOUISVILLE, NE
(National stream-quality accounting network station)

LOCATION.--Lat 41°00'55", long 96°09'28", in NW1/4NW1/4 sec.14, T.12 N., R.11 E., Sarpy County, Hydrologic Unit 10200202, on the left bank at the upstream side of bridge on Nebraska Highway 50, 1 mi (2 km) north of Louisville.

DRAINAGE AREA.--85,800 mi² (222,200 km²), approximately, of which about 71,000 mi² (183,900 km²) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1953 to current year. October 1961 to September 1973 published as Platte River at South Bend.

REVISED RECORDS.--WDR NE-76-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,007.10 ft (306.964 m) National Geodetic Vertical Datum of 1929. Dec. 5, 1961 to Sept. 30, 1973, at site 7 mi (11 km) upstream at datum 31.43 feet higher.

REMARKS.--Records good except those for winter period, which are poor. Natural flow of stream affected by storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas.

AVERAGE DISCHARGE.--26 years, 5,659 ft³/s (160.3 m³/s), 4,100,000 acre-ft/yr (5.06 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 124,000 ft³/s (3,510 m³/s) Mar. 30, 1960, gage height, 12.45 ft (3.795 m); minimum daily, 131 ft³/s (3.71 m³/s) Sept. 3, 1976.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge known since at least 1881, 124,000 ft³/s (3,510 m³/s) Mar. 30, 1960, gage height, 12.45 ft (3.795 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 52,000 ft³/s (1,470 m³/s) Mar. 18, gage height, 8.88 ft (2.707 m), backwater from ice; maximum gage height, 9.79 ft (2.984 m), Mar. 3, ice jam; minimum daily discharge, 945 ft³/s (26.8 m³/s) Aug. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1830	3300	3500	2000	2800	4800	10100	7660	3760	10300	3040	2380
2	2130	3060	3400	1900	3000	6400	9960	21500	3620	10700	2580	2290
3	1870	3890	3300	1900	3100	8000	10800	18300	4260	10200	2840	2070
4	1700	4160	3100	1950	3100	10400	9730	13800	4100	9480	3420	2010
5	2340	3670	3000	2000	3300	13000	9510	13100	4190	8000	3180	1890
6	2600	2880	2900	2100	3500	15000	8930	10200	3350	7930	3610	1840
7	2330	3920	2600	2200	3400	18000	8300	8800	3200	7420	2790	1480
8	2260	3420	2500	2200	3200	21000	7210	7600	2990	7600	1970	1120
9	2110	3900	2400	2250	3000	18000	8130	7380	3080	7170	1610	1480
10	1900	4120	2450	2300	3100	16500	7940	6660	3470	6260	1670	1420
11	2680	3810	2500	2600	3100	16500	7750	14300	4070	6240	1400	1340
12	2430	4250	2450	2800	3100	16500	8090	22500	4010	6020	1420	1340
13	2230	3950	2500	2700	3100	19000	9440	16200	4310	5040	945	1360
14	2260	5480	2600	2600	3200	22000	10600	13100	4110	4740	1160	1530
15	2480	4790	2700	2700	3300	25000	9370	10600	3950	8840	1360	1820
16	2510	4420	2500	2800	3100	24000	10400	8970	3710	8680	1310	1920
17	2360	5410	2600	2900	3200	30000	9090	7890	3010	6000	1140	1990
18	3050	4540	2600	3000	3400	35000	7690	7560	3420	4650	1260	2280
19	2630	3730	2600	3000	3600	36000	7730	6460	3430	4080	1710	2070
20	2770	4180	2300	2800	3400	33000	7370	7400	4580	3960	1240	2250
21	3150	2960	2500	3000	3600	23400	8910	7560	4590	3530	2700	2360
22	3290	2170	2400	3100	3500	20500	9680	6750	5380	3320	3510	2120
23	3390	4310	2300	2900	3400	41100	10600	6120	5780	3120	4330	2040
24	3080	3530	2250	2800	3400	33200	8600	5690	5470	2980	3340	2250
25	3450	3310	2300	2900	3500	23800	9850	4780	6760	2920	3220	2260
26	4180	3520	2400	2800	3700	18900	9920	5070	6680	2930	3050	2070
27	3420	3710	2500	2700	3900	16200	8680	4310	6850	3200	3910	2270
28	3760	3770	2600	2700	4100	14400	8090	4160	8260	2930	3820	2210
29	3320	3700	2400	2600	---	12600	8460	3970	11400	2720	3350	2190
30	3250	3600	2200	2600	---	11900	8190	3620	10900	2800	3610	2230
31	3520	---	2100	2600	---	10800	---	3580	---	2620	2690	---
TOTAL	84280	115460	80450	79400	93100	614900	269120	285790	146690	176380	77185	57880
MEAN	2719	3849	2595	2561	3325	19840	8971	9219	4890	5690	2490	1929
MAX	4180	5480	3500	3100	4100	41100	10800	22500	11400	10700	4330	2380
MIN	1700	2170	2100	1900	2800	4800	7210	3580	2990	2620	945	1120
AC-FT	167200	229000	159600	157500	184700	1220000	533800	566900	291000	349800	153100	114800

CAL YR 1978 TOTAL 2264770 MEAN 6205 MAX 86100 MIN 1110 AC-FT 4492000
WTR YR 1979 TOTAL 2080635 MEAN 5700 MAX 41100 MIN 945 AC-FT 4127000

06805500 PLATTE RIVER AT LOUISVILLE, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water year 1972 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: November 1974 to current year.
WATER TEMPERATURES: November 1974 to current year.
SUSPENDED SEDIMENT DISCHARGE: October 1971 to current year.

REMARKS.--Prior to July 1, 1971, sediment records were obtained by the U.S. Corps of Engineers.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 3,450 micromhos Sept. 1, 1976; minimum daily, 272 micromhos Aug. 17, 1977.
WATER TEMPERATURES: Maximum, 36°C July 24, 1977, Aug. 19, 1979; minimum, 0.0°C on many days during winter periods.
SEDIMENT CONCENTRATIONS: Maximum daily, 11,600 mg/L May 19, 1974; minimum daily, 60 mg/L July 19, 1976.
SEDIMENT LOADS: Maximum daily, 1,180,000 tons (1,070,000 tonnes) Mar. 21, 1978; minimum daily, 64 tons (58 tonnes) July 19, 1976.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 1,160 micromhos Aug. 20; minimum daily, 286 micromhos Mar. 18.
WATER TEMPERATURES: Maximum, 36.0°C Aug. 19; minimum, 0.0°C on many days during winter period.
SEDIMENT CONCENTRATIONS: Maximum daily, 5,200 mg/L Mar. 20; minimum daily, 230 mg/L Apr. 26, 27, 28.
SEDIMENT LOADS: Maximum daily, 19,000 tons (17,300 tonnes) Mar. 21; minimum daily, 360 tons (328 tonnes) Nov. 20.

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (JTU) (00070)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)
OCT 12...	1430	2360	830	8.6	15.0	45	30	12.2	K46	248	170	2
NOV 07...	1500	4230	584	8.2	8.5	70	25	10.9	108	3030	170	15
DEC 12...	1100	2450	1080	7.6	.0	8	4.0	11.5	320	136	220	24
JAN 10...	1100	2310	820	7.5	.0	15	8.9	10.2	K750	240	210	12
FEB 13...	1230	3110	760	7.1	.0	15	12	8.4	K500	196	200	37
MAR 12...	1300	16800	423	7.3	3.0	270	210	--	K429	18500	140	41
APR 12...	1300	7960	575	8.2	7.5	65	95	10.6	1633	K12000	170	2
MAY 08...	1245	7640	738	8.5	21.5	--	21	11.2	K170	500	230	45
JUN 13...	1100	4690	570	8.8	23.0	45	36	--	260	K100	160	0
JUL 09...	1430	7950	763	8.7	23.5	100	65	9.8	K49000	1300	210	36
AUG 07...	1200	3200	815	8.8	29.0	60	36	8.5	K22	K90	210	47
SEP 05...	1130	1920	818	8.7	25.0	40	33	8.5	K30	120	190	17

K Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)
OCT 12...	49	12	120	4.0	9.3	170	66	140	.4	38	511	537
NOV 07...	48	11	60	2.0	8.5	150	69	56	.4	39	392	382
DEC 12...	65	15	150	4.4	10	200	100	170	.4	38	659	669
JAN 10...	62	14	87	2.6	11	200	75	100	.3	51	511	521
FEB 13...	59	12	84	2.6	8.4	160	75	99	.3	49	474	483
MAR 12...	42	8.4	34	1.3	12	98	53	27	.3	19	275	253
APR 12...	49	12	47	1.6	8.9	170	75	28	.4	35	426	358
MAY 08...	67	14	68	2.0	11	180	120	62	.4	22	452	473
JUN 13...	46	10	45	1.6	8.2	160	59	23	.4	30	368	318
JUL 09...	56	16	61	1.9	11	170	130	38	.5	30	448	445
AUG 07...	58	15	89	2.7	13	160	130	86	.5	30	521	558
SEP 05...	55	12	97	3.1	11	170	87	110	.4	34	515	509

06805500 PLATTE RIVER AT LOUISVILLE, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS- SOLVED (TONS PER DAY) (70302)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN,NH4 + ORG. SUSP. TOTAL (MG/L AS N) (00624)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00666)	CARRON, ORGANIC TOTAL (MG/L AS C) (00680)
OCT 12...	.70	3260	.01	.01	1.5	1.5	.73	.77	1.5	.26	.27	9.3
NOV 07...	.53	4480	.60	.07	1.0	1.1	.37	.73	1.7	.49	.16	--
DEC 12...	.90	4360	1.2	.30	.67	.97	.08	.89	2.2	.45	.43	2.7
JAN 10...	.70	3190	1.0	.24	.45	.69	.00	.69	1.7	.40	.37	3.1
FEB 13...	.64	3980	1.0	.42	.29	.71	.00	--	1.7	.38	.31	--
MAR 12...	.37	12500	1.1	.70	2.0	2.7	1.3	1.4	3.8	.72	.33	31
APR 12...	.58	9160	1.4	.15	1.1	1.2	.67	.53	2.6	.46	.28	17
MAY 08...	.61	9320	.65	.01	.41	.42	.01	.41	1.1	.38	.18	--
JUN 13...	.50	4660	.01	.04	1.4	1.4	.89	.51	1.4	.43	.14	11
JUL 09...	.61	9620	.02	.04	1.6	1.6	1.3	.26	1.6	.41	.18	15
AUG 07...	.71	4500	.01	.01	1.5	1.5	1.1	.43	1.5	.38	.22	--
SEP 05...	.70	2670	.01	.01	2.2	2.2	1.6	.57	2.2	.50	.32	--

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA) (01007)	BARIUM, SUS- PENDED RECOV- ERABLE (UG/L AS BA) (01006)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CADMIUM SUS- PENDED RECOV- ERABLE (UG/L AS CD) (01026)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	CHRO- MIUM, SUS- PENDED RECOV. (UG/L AS CR) (01031)
NOV 07...	1500	9	7	200	100	100	3	2	<1	0	0
FEB 13...	1230	6	1	200	100	100	--	--	--	0	0
MAY 08...	1245	7	6	200	0	200	2	0	2	10	10
AUG 07...	1200	8	8	100	0	100	1	0	<1	0	0

DATE	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COBALT, TOTAL RECOV- ERABLE (UG/L AS CO) (01037)	COBALT, SUS- PENDED RECOV- ERABLE (UG/L AS CO) (01036)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	COPPER, SUS- PENDED RECOV- ERABLE (UG/L AS CU) (01041)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	IRON, SUS- PENDED RECOV- ERABLE (UG/L AS FE) (01044)	IRON, DIS- SOLVED (UG/L AS FE) (01046)
NOV 07...	0	3	0	<3	210	190	20	5200	5200	40
FEB 13...	0	0	0	1	19	16	3	770	760	10
MAY 08...	0	2	0	<3	--	--	7	4200	4200	10
AUG 07...	0	3	0	<3	8	1	7	2100	2100	<10

DATE	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	LEAD, SUS- PENDED RECOV- ERABLE (UG/L AS PB) (01050)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MANGA- NESE, SUS- PENDED RECOV. (UG/L AS MN) (01054)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MERCURY SUS- PENDED RECOV- ERABLE (UG/L AS HG) (71895)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	SELE- NIUM, TOTAL (UG/L AS SE) (01147)
NOV 07...	--	--	--	240	240	4	.0	.0	.0	3
FEB 13...	--	0	--	140	70	70	.0	.0	.1	2
MAY 08...	16	16	0	240	240	3	.2	.1	.1	3
AUG 07...	18	18	0	390	390	1	.1	.1	.0	2

06805500 PLATTE RIVER AT LOUISVILLE, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	SELENIUM, SUSPENDED TOTAL (UG/L AS SE) (01146)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOVERABLE (UG/L AS AG) (01077)	SILVER, SUSPENDED RECOVERABLE (UG/L AS AG) (01076)	SILVER, DISSOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	ZINC, SUSPENDED RECOVERABLE (UG/L AS ZN) (01091)	ZINC, DISSOLVED (UG/L AS ZN) (01090)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C) (00689)
NOV 07...	1	2	0	0	0	80	80	<3	7.8	1.6
FEB 13...	0	2	0	0	0	20	20	0	3.5	1.1
MAY 08...	1	2	0	0	0	40	20	20	8.6	3.4
AUG 07...	1	1	0	0	0	30	30	<3	5.4	6.9

DATE	TIME	PCB, TOTAL (UG/L) (39516)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG) (39519)	ALDRIN, TOTAL (UG/L) (39330)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG) (39333)	CHLORDANE, TOTAL (UG/L) (39350)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG) (39351)	DDD, TOTAL (UG/L) (39360)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG) (39363)	DDE, TOTAL (UG/L) (39365)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG) (39368)
NOV 07...	1500	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
FEB 13...	1230	ND	--	ND	--	ND	--	ND	--	ND	--
MAY 08...	1245	ND	--	ND	--	ND	--	ND	--	ND	--

DATE	DDT, TOTAL (UG/L) (39370)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG) (39373)	DIAZINON, TOTAL (UG/L) (39570)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG) (39571)	DIELDRIN TOTAL (UG/L) (39380)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG) (39383)	ENDRIN, TOTAL (UG/L) (39390)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG) (39393)	ETHION, TOTAL (UG/L) (39398)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG) (39399)
NOV 07...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
FEB 13...	ND	--	ND	--	ND	--	ND	--	ND	--
MAY 08...	ND	--	ND	--	ND	--	ND	--	ND	--

DATE	HEPTACHLOR, TOTAL (UG/L) (39410)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG) (39413)	HEPTACHLOR EPOXIDE TOTAL (UG/L) (39420)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG) (39423)	LINDANE TOTAL (UG/L) (39340)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG) (39343)	MALATHION, TOTAL (UG/L) (39530)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG) (39531)	METHOXYCHLOR, TOTAL (UG/L) (39480)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG) (39481)
NOV 07...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
FEB 13...	ND	--	ND	--	ND	--	ND	--	ND	--
MAY 08...	ND	--	ND	--	ND	--	ND	--	ND	--

DATE	METHYL PARATHION, TOTAL (UG/L) (39600)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG) (39601)	METHYL TRITHION, TOTAL (UG/L) (39790)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG) (39791)	PARATHION, TOTAL (UG/L) (39540)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG) (39541)	TOXAPHENE, TOTAL (UG/L) (39400)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG) (39403)	TOTAL TRITHION (UG/L) (39786)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG) (39787)
NOV 07...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
FEB 13...	ND	--	ND	--	ND	--	ND	--	ND	--
MAY 08...	ND	--	ND	--	ND	--	ND	--	ND	--

06805500 PLATTE RIVER AT LOUISVILLE, NE--Continued

PHYTOPLANKTON ANALYSES, JUNE 1978 TO SEPTEMBER 1979

DATE	JUN 13,78	JUL 26,78	AUG 8,78	SEP 12,78	NOV 7,78	MAR 12,79
TIME	1210	1245	1400	1400	1500	1300
TOTAL CELLS/ML	90000	120000	83000	350000	32000	1800
DIVERSITY: DIVISION	1.4	1.4	1.3	1.1	0.9	0.4
.CLASS	1.4	1.4	1.3	1.1	0.9	0.4
..ORDER	1.7	2.0	1.7	1.6	1.6	1.1
...FAMILY	2.6	2.7	2.3	2.0	2.7	2.6
....GENUS	2.8	3.2	2.9	2.9	3.0	2.6

ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)												
.CHLOROPHYCEAE												
..CHLOROCOCCALES												
...CHARACIACEAE												
....SCHROEDERIA	--	-	*	0	--	-	*	0	--	-	--	-
...CHLOROCOCCACEAE												
....CHLOROCOCCUM	--	-	--	-	--	-	--	-	--	-	--	-
...COELASTRACEAE												
....COELASTRUM	18000#	20	5700	5	--	-	8600	2	--	-	--	-
...HYDRODICTYACEAE												
....PEDIASTRUM	4400	5	--	-	--	-	--	-	--	-	--	-
...MICRACTINIACEAE												
....GOLENKINIA	--	-	--	-	1700	2	*	0	--	-	--	-
....MICRACTINIUM	--	-	--	-	--	-	--	-	370	1	--	-
...OOCYSTACEAE												
....ANKISTRODESMUS	1600	2	1400	1	4300	5	*	0	1100	3	--	-
....CHLORELLA	--	-	--	-	--	-	--	-	--	-	--	-
....CHODATELLA	--	-	--	-	--	-	--	-	--	-	--	-
....DICHOTOMOCOCCUS	--	-	--	-	--	-	--	-	--	-	--	-
....DICTYOSPHAERIUM	--	-	5100	4	4500	5	22000	6	--	-	--	-
....FRANCEIA	--	-	--	-	950	1	--	-	--	-	--	-
....KIRCHNERIELLA	--	-	850	1	2100	3	12000	4	--	-	--	-
....OOCYSTIS	1100	1	--	-	--	-	--	-	560	2	--	-
....SELENASTRUM	--	-	5700	5	--	-	*	0	--	-	--	-
....TETRAEDRON	--	-	--	-	*	0	*	0	--	-	--	-
....TREUBARIA	--	-	--	-	--	-	--	-	--	-	--	-
....WESTELLA	--	-	--	-	*	0	--	-	--	-	--	-
...SCENEDESMACEAE												
....ACTINASTRUM	--	-	4500	4	4700	6	17000	5	--	-	--	-
....CRUCIGENIA	730	1	--	-	--	-	*	0	--	-	--	-
....SCENEDESMUS	28000#	31	22000#	19	16000#	20	38000	11	8000#	25	--	-
....TETRASTRUM	--	-	3400	3	--	-	*	0	1500	5	--	-
..TETRASPORALES												
...COCCOMYXACEAE												
....ELAKATOTHRIX	--	-	--	-	--	-	--	-	--	-	--	-
...PALMELLACEAE												
....SPHAEROCYSTIS	--	-	13000	11	--	-	--	-	--	-	--	-
...TETRASPORACEAE												
....SCHIZOCHLAMYS	--	-	--	-	--	-	--	-	--	-	--	-
..VOLVOCALES												
...CHLAMYDOMONADACEAE												
....CARTERIA	--	-	--	-	--	-	--	-	--	-	--	-
....CHLAMYDOMONAS	--	-	--	-	--	-	--	-	190	1	--	-
..ZYGNEMATALES												
...DESMIDIACEAE												
....CLOSTERIUM	--	-	--	-	--	-	--	-	--	-	--	-
....COSMARIUM	*	0	--	-	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

06805500 PLATTE RIVER AT LOUISVILLE, NE--Continued

PHYTOPLANKTON ANALYSES, JUNE 1978 TO SEPTEMBER 1979

DATE	JUN 13,78		JUL 26,78		AUG 8,78		SEP 12,78		NOV 7,78		MAR 12,79	
TIME	1210		1245		1400		1400		1500		1300	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHRYSOPHYTA												
.BACILLARIOPHYCEAE												
..CENTRALES												
...COSCINODISCACEAE												
....CYCLOTELLA	2000	2	5700	5	2100	3	12000	4	8600#	27	390#	21
....MELOSIRA	--	-	1700	1	--	-	*	0	--	-	--	-
....SKELETONEMA	--	-	--	-	--	-	--	-	--	-	--	-
....STEPHANODISCUS	--	-	--	-	--	-	--	-	--	-	--	-
..PENNALES												
...ACHNANTHACEAE												
....ACHNANTHES	--	-	--	-	--	-	--	-	190	1	--	-
....COCCONEIS	--	-	--	-	--	-	--	-	--	-	130	7
...CYMBELLACEAE												
....CYMBELLA	--	-	*	0	--	-	--	-	190	1	130	7
...DIATOMACEAE												
....OPEPHORA	--	-	--	-	--	-	--	-	370	1	--	-
...FRAGILARIACEAE												
....ASTERIONELLA	15000#	17	--	-	--	-	--	-	--	-	--	-
....FRAGILARIA	2200	2	--	-	--	-	--	-	3900	12	--	-
....SYNEDRA	550	1	--	-	--	-	--	-	930	3	--	-
...GOMPHONEMATACEAE												
....GOMPHONEMA	--	-	*	0	--	-	--	-	190	1	--	-
...NAVICULACEAE												
....GYROSIGMA	--	-	*	0	--	-	--	-	--	-	--	-
....NAVICULA	--	-	1700	1	--	-	*	0	3400	10	390#	21
....PINNULARIA	*	0	*	0	--	-	--	-	--	-	--	-
...NITZSCHIACEAE												
....NITZSCHIA	*	0	2300	2	2800	3	2200	1	2600	8	520#	29
...SURIRELLACEAE												
....SURIRELLA	--	-	--	-	--	-	--	-	190	1	130	7
CRYPTOPHYTA (CRYPTOMONADS)												
.CRYPTOPHYCEAE												
..CRYPTOMONADALES												
...CRYPTOMONADACEAE												
....CRYPTOMONAS	--	-	--	-	--	-	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)												
.CYANOPHYCEAE												
..CHROOCOCCALES												
...CHROOCOCCACEAE												
....AGMENELLUM	--	-	2300	2	30000#	36	150000#	43	--	-	--	-
....ANACYSTIS	8800	10	--	-	1700	2	18000	5	--	-	--	-
....GOMPHOSPHAERIA	--	-	--	-	--	-	25000	7	--	-	--	-
..HORMOGONALES												
...NOSTOCACEAE												
....ANABAENA	6600	7	1700	1	9700	12	--	-	--	-	--	-
...OSCILLATORIACEAE												
....OSCILLATORIA	--	-	37000#	32	1400	2	34000	10	--	-	--	-
....SCHIZOTHRIX	--	-	--	-	--	-	--	-	--	-	--	-
...RIVULARIACEAE												
....RAPHIDIOPSIS	--	-	--	-	--	-	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)												
.EUGLENOPHYCEAE												
..EUGLENALES												
...EUGLENACEAE												
....EUGLENA	--	-	--	-	--	-	--	-	--	-	130	7

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

06805500 PLATTE RIVER AT LOUISVILLE, NE--Continued

PHYTOPLANKTON ANALYSES, JUNE 1978 TO SEPTEMBER 1979

DATE	MAY 8,79		JUN 13,79		JUL 9,79		AUG 7,79		SEP 5,79	
TIME	1245		1100		1430		1200		1130	
TOTAL CELLS/ML	48000		330000		140000		310000		480000	
DIVERSITY: DIVISION	1.3		1.3		1.2		1.1		1.2	
.CLASS	1.3		1.3		1.2		1.1		1.2	
..ORDER	2.0		1.7		1.5		1.5		1.8	
...FAMILY	3.0		2.7		2.5		2.0		2.4	
....GENUS	3.7		3.3		3.3		2.8		3.3	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)										
.CHLOROPHYCEAE										
..CHLOROCOCCALES										
...CHARACIACEAE										
....SCHROEDERIA	--	-	--	-	730	1	1800	1	--	-
...CHLOROCOCCACEAE										
....CHLOROCOCCUM	--	-	--	-	--	-	--	-	*	0
...COELASTRACEAE										
....COELASTRUM	1900	4	22000	7	--	-	2900	1	9700	2
...HYDRODICTYACEAE										
....PEDIASTRUM	--	-	--	-	5900	4	5700	2	--	-
...MICRACTINIACEAE										
....GOLENKINIA	*	0	*	0	1100	1	--	-	*	0
....MICRACTINIUM	3100	6	27000	8	--	-	*	0	--	-
...OOCYSTACEAE										
....ANKISTRODESMUS	1700	3	10000	3	1500	1	3600	1	7300	2
....CHLORELLA	--	-	--	-	--	-	--	-	9200	2
....CHODATELLA	960	2	2400	1	--	-	--	-	*	0
....DICHOTOMOCOCCUS	--	-	--	-	--	-	8600	3	--	-
....DICTYOSPHAERIUM	1400	3	13000	4	1500	1	*	0	21000	4
....FRANCEIA	--	-	--	-	--	-	--	-	--	-
....KIRCHNERIELLA	1400	3	--	-	2600	2	3200	1	*	0
....OOCYSTIS	*	0	2400	1	6200	5	2900	1	*	0
....SELENASTRUM	--	-	*	0	730	1	--	-	--	-
....TETRAEDRON	--	-	*	0	--	-	--	-	*	0
....TREUBARIA	--	-	*	0	1800	1	--	-	--	-
....WESTELLA	--	-	4900	1	--	-	--	-	--	-
...SCENEDESMACEAE										
....ACTINASTRUM	1900	4	36000	11	22000#	16	4300	1	19000	4
....CRUCIGENIA	--	-	--	-	--	-	--	-	--	-
....SCENEDESMUS	7400#	15	68000#	20	40000#	29	64000#	21	81000#	17
....TETRASTRUM	960	2	--	-	2900	2	4300	1	7800	2
..TETRASPORALES										
...COCCOMYXACEAE										
....ELAKATOTHRIX	--	-	--	-	--	-	--	-	*	0
...PALMELLACEAE										
....SPHAEROCYSTIS	--	-	--	-	--	-	--	-	--	-
...TETRASPORACEAE										
....SCHIZOCHLAMYS	960	2	--	-	--	-	--	-	--	-
..VOLVOCALES										
...CHLAMYDOMONADACEAE										
....CARTERIA	*	0	--	-	--	-	--	-	--	-
....CHLAMYDOMONAS	--	-	4200	1	--	-	--	-	--	-
..ZYGNEMATALES										
...DESMIDIACEAE										
....CLOSTERIUM	*	0	--	-	--	-	--	-	--	-
....COSMARIUM	--	-	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

06805500 PLATTE RIVER AT LOUISVILLE, NE--Continued

PHYTOPLANKTON ANALYSES, JUNE 1978 TO SEPTEMBER 1979

DATE TIME	MAY 8,79 1245		JUN 13,79 1100		JUL 9,79 1430		AUG 7,79 1200		SEP 5,79 1130	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHRYSOPHYTA										
.BACILLARIOPHYCEAE										
..CENTRALES										
...COSCINODISCACEAE										
....CYCLOTELLA	9400#	19	4200	1	7300	5	*	0	18000	4
....MELOSIRA	2400	5	2400	1	2200	2	--	-	*	0
....SKELETONEMA	--	-	--	-	--	-	--	-	*	0
....STEPHANODISCUS	--	-	*	0	--	-	--	-	--	-
..PENNALES										
...ACHNANTHACEAE										
....ACHNANTHES	--	-	--	-	--	-	--	-	--	-
....COCCONEIS	--	-	--	-	--	-	--	-	--	-
...CYMBELLACEAE										
....CYMBELLA	--	-	--	-	--	-	--	-	--	-
...DIATOMACEAE										
....OPEPHORA	--	-	--	-	--	-	--	-	--	-
...FRAGILARIACEAE										
....ASTERIONELLA	--	-	--	-	--	-	--	-	--	-
....FRAGILARIA	7000	14	15000	5	--	-	5400	2	3400	1
....SYNEDRA	--	-	--	-	--	-	--	-	*	0
...GOMPHONEMATACEAE										
....GOMPHONEMA	--	-	--	-	--	-	--	-	--	-
...NAVICULACEAE										
....GYROSIGMA	--	-	--	-	--	-	--	-	--	-
....NAVICULA	--	-	--	-	--	-	--	-	*	0
....PINNULARIA	--	-	--	-	--	-	--	-	--	-
...NITZSCHIACEAE										
....NITZSCHIA	2900	6	5500	2	1500	1	*	0	5300	1
...SURIRELLACEAE										
....SURIRELLA	--	-	--	-	--	-	--	-	--	-
CRYPTOPHYTA (CRYPTOMONADS)										
.CRYPTOPHYCEAE										
..CRYPTOMONADALES										
...CRYPTOMONADACEAE										
....CRYPTOMONAS	--	-	*	0	--	-	--	-	*	0
CYANOPHYTA (BLUE-GREEN ALGAE)										
.CYANOPHYCEAE										
..CHROOCOCCALES										
...CHROOCOCCACEAE										
....AGMENELLUM	--	-	--	-	--	-	57000#	19	85000#	18
....ANACYSTIS	960	2	87000#	26	13000	9	110000#	36	120000#	25
....GOMPHOSPHAERIA	--	-	--	-	--	-	--	-	--	-
..HORMOGONALES										
...NOSTOCACEAE										
....ANABAENA	--	-	--	-	16000	12	13000	4	49000	10
...OSCILLATORIACEAE										
....OSCILLATORIA	2600	5	24000	7	11000	8	16000	5	--	-
....SCHIZOTHRIX	--	-	--	-	--	-	--	-	30000	6
...RIVULARIACEAE										
....RAPHIDIOPSIS	*	0	--	-	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)										
.EUGLENOPHYCEAE										
..EUGLENALES										
...EUGLENACEAE										
....EUGLENA	--	-	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

06805500 PLATTE RIVER AT LOUISVILLE, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	LENGTH OF EXPO-SURE (DAYS) (00022)	BIOMASS CHLORO-PHYLL RATIO PERI-PHYTON (UNITS) (70950)	CHLOR-A PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2) (70957)	CHLOR-B PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2) (70958)	PERI-PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M (00573)	PERI-PHYTON BIOMASS ASH WEIGHT G/SQ M (00572)
JUN						
13...	36	215	3.26	.000	13.0	12.3
JUL						
09...	26	458	1.20	.000	2.52	1.97

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)
AUG					
21...	0800	543	7.3	25.0	6.1
21...	1000	518	7.2	24.5	6.3
21...	1200	409	7.4	24.0	6.7
21...	1400	374	8.1	27.0	6.8
21...	1600	360	8.1	25.0	6.7
21...	1800	330	7.9	27.0	6.6
21...	2000	348	8.0	26.0	6.5
AUG					
21...	2200	348	8.0	25.0	6.6
21...	2400	327	7.1	26.0	6.3
22...	0200	318	7.9	26.0	6.9
22...	0400	308	7.9	24.0	7.4
22...	0600	310	8.0	24.5	7.1
22...	0800	322	8.0	23.0	7.2

06805500 PLATTE RIVER AT LOUISVILLE, NE--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	668	478	477	742	690	770	495	525	560	535	615	747
2	523	464	546	761	703	600	500	454	588	515	695	748
3	590	488	596	795	683	335	472	436	533	528	706	669
4	705	458	658	876	712	400	490	497	525	565	553	869
5	472	509	703	833	690	442	500	502	518	555	620	867
6	438	721	771	845	643	435	515	533	562	561	616	894
7	518	462	847	840	642	372	518	576	545	538	768	860
8	604	591	898	833	660	426	548	628	588	549	904	1040
9	635	471	915	803	671	426	570	593	560	506	983	860
10	625	481	970	820	677	386	518	602	508	527	1010	1040
11	445	491	1060	768	730	410	522	502	488	532	1150	866
12	570	439	1080	820	739	412	518	384	533	579	819	882
13	538	488	1020	795	760	386	495	384	510	505	1060	903
14	655	382	1000	833	724	322	485	439	515	579	1050	976
15	540	419	943	821	736	328	480	467	488	603	1150	1010
16	595	441	883	799	722	336	478	508	493	488	875	798
17	689	411	841	805	698	338	488	538	690	498	984	654
18	454	421	802	811	760	286	508	532	557	475	1020	639
19	504	455	779	799	740	315	502	579	615	581	900	811
20	479	481	763	790	731	336	514	532	518	581	1160	780
21	440	580	740	801	743	334	493	519	470	635	546	1030
22	420	815	728	823	695	372	450	514	478	609	493	599
23	445	531	708	794	684	392	448	544	465	695	428	718
24	445	689	610	763	699	378	488	561	499	698	567	754
25	440	630	600	771	732	402	670	596	600	818	566	794
26	410	628	642	746	763	430	500	558	546	658	775	811
27	425	575	655	735	721	442	498	602	688	559	577	715
28	420	497	655	750	743	464	528	605	657	628	437	675
29	475	481	644	741	---	484	510	605	655	640	500	1040
30	479	428	654	731	---	478	518	569	600	605	520	719
31	470	---	648	700	---	496	---	608	---	684	647	---

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.5	13.0	1.5	.0	.0	.5	6.0	17.5	22.0	24.5	29.0	26.5
2	18.5	14.0	1.0	.0	.0	1.5	5.5	14.5	25.0	25.5	28.0	29.5
3	17.0	16.5	.5	.0	.0	1.5	6.0	13.0	25.0	27.0	31.5	25.5
4	16.0	14.5	.5	.0	.0	1.0	8.0	16.0	26.0	27.0	29.0	30.0
5	14.5	12.5	.5	.0	.0	1.5	7.0	17.0	27.5	22.0	30.0	30.0
6	13.0	11.5	.5	.0	.0	3.5	7.5	19.0	28.0	21.0	30.5	28.5
7	13.0	10.0	.0	.0	.0	.5	7.0	21.5	28.0	21.0	31.0	29.5
8	16.0	13.0	.0	.0	.0	.0	9.0	21.0	28.5	21.0	33.5	28.0
9	19.5	13.5	.0	.0	.0	2.0	9.0	17.0	18.0	26.0	32.0	27.5
10	19.0	12.5	.0	.0	.0	.0	7.0	10.5	22.0	29.0	32.0	27.5
11	19.5	7.0	.0	.0	.0	3.5	8.0	13.5	25.0	30.0	28.0	28.0
12	18.0	6.0	1.0	.0	.0	5.0	8.0	13.0	27.5	29.0	27.0	20.5
13	14.5	9.0	.5	.0	.0	1.5	10.0	17.0	29.0	28.0	26.5	21.5
14	14.0	5.0	.5	.0	.0	2.0	13.0	18.5	29.5	33.5	26.5	20.0
15	15.0	4.0	.5	.0	.0	1.5	12.0	20.5	29.0	29.0	19.5	23.0
16	13.5	3.5	.5	.0	.0	3.0	17.0	21.5	29.0	27.0	22.0	23.5
17	14.5	4.5	.5	.0	.0	1.0	19.0	23.0	23.0	28.0	26.0	24.0
18	14.5	4.5	1.0	.0	.0	5.0	18.0	20.5	24.0	28.0	30.0	23.0
19	15.0	.5	1.0	.0	.0	4.0	19.5	21.0	24.5	29.0	36.0	23.0
20	15.0	.0	.0	.0	.0	6.0	16.0	22.0	24.0	28.5	30.5	23.5
21	16.0	.0	.5	.0	.0	5.5	18.0	21.0	27.5	27.0	27.0	22.0
22	12.0	.0	1.0	.0	.0	6.0	19.0	22.0	29.5	29.5	29.5	18.0
23	12.0	.5	.0	.0	.0	3.5	20.5	19.5	22.0	26.5	27.0	22.5
24	12.5	2.0	.0	.0	.0	2.5	18.0	21.0	23.0	26.0	28.0	23.0
25	9.5	1.0	.5	.0	.0	5.0	14.0	22.0	25.0	30.0	27.5	24.0
26	11.5	1.5	.0	.0	.0	6.0	16.0	24.0	24.0	32.0	25.5	23.5
27	11.5	.5	1.0	.0	.0	5.5	14.0	25.0	27.0	32.0	24.5	24.5
28	12.0	.5	1.0	.0	.5	11.5	14.5	25.5	27.0	29.0	23.5	23.0
29	14.0	1.5	.0	.0	---	11.5	16.0	27.0	27.0	30.5	29.5	23.0
30	14.5	2.0	.0	.0	---	8.5	16.0	21.0	27.5	31.0	30.5	24.5
31	11.0	---	.0	.0	---	9.0	---	21.0	---	27.5	26.0	---

06805500 PLATTE RIVER AT LOUISVILLE, NE--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	1830	160	790	3300	350	3120	3500	650	6140
2	2130	300	1730	3060	350	2890	3400	650	5970
3	1870	280	1410	3890	350	3680	3300	630	5610
4	1700	260	1190	4160	320	3590	3100	520	4350
5	2340	550	3470	3670	300	2970	3000	370	3000
6	2600	600	4210	2880	300	2330	2900	300	2350
7	2330	570	3590	3920	400	4230	2600	200	1400
8	2260	550	3360	3420	450	4160	2500	210	1420
9	2110	300	1710	3900	380	4000	2400	300	1940
10	1900	230	1180	4120	420	4670	2450	320	2120
11	2680	330	2390	3810	460	4730	2500	340	2300
12	2430	150	984	4250	420	4820	2450	400	2650
13	2230	190	1140	3950	540	5760	2500	400	2700
14	2260	340	2070	5480	600	8880	2600	380	2670
15	2480	570	3820	4790	500	6470	2700	340	2480
16	2510	550	3730	4420	350	4180	2500	370	2500
17	2360	250	1590	5410	420	6130	2600	270	1900
18	3050	350	2880	4540	350	4290	2600	230	1610
19	2630	200	1420	3730	260	2620	2600	230	1610
20	2770	340	2540	4180	200	2260	2300	170	1060
21	3150	260	2210	2960	120	959	2500	150	1010
22	3290	330	2930	2170	150	879	2400	150	972
23	3390	380	3480	4310	440	5120	2300	140	869
24	3080	300	2490	3530	450	4290	2250	160	972
25	3450	330	3070	3310	350	3130	2300	220	1370
26	4180	530	5980	3520	260	2470	2400	210	1360
27	3420	450	4160	3710	300	3010	2500	250	1690
28	3760	340	3450	3770	300	3050	2600	230	1610
29	3320	220	1970	3700	420	4200	2400	130	842
30	3250	250	2190	3600	580	5640	2200	190	1130
31	3520	330	3140	---	---	---	2100	180	1020
TOTAL	84280	---	80274	115460	---	118528	80450	---	68625

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JANUARY			FEBRUARY			MARCH	
1	2000	160	864	2800	165	1250	4800	520	6740
2	1900	120	616	3000	165	1340	6400	1420	24500
3	1900	112	575	3100	165	1380	8000	2940	63500
4	1950	120	632	3100	165	1380	10400	2550	71600
5	2000	120	648	3300	170	1510	13000	1900	66700
6	2100	130	737	3500	175	1650	15000	1910	77400
7	2200	135	802	3400	170	1560	18000	2570	125000
8	2200	135	802	3200	160	1380	21000	1900	113000
9	2250	140	850	3000	160	1300	18000	1460	71000
10	2300	150	932	3100	165	1380	16500	1970	87800
11	2600	160	1120	3100	165	1380	16500	3030	135000
12	2800	180	1360	3100	165	1380	16500	3070	137000
13	2700	170	1240	3100	165	1380	19000	2500	128000
14	2600	160	1120	3200	170	1470	22000	2720	162000
15	2700	170	1240	3300	170	1510	25000	2800	189000
16	2800	180	1360	3100	170	1420	24000	3650	237000
17	2900	190	1490	3200	175	1510	30000	3200	259000
18	3000	200	1620	3400	175	1610	35000	4400	416000
19	3000	200	1620	3600	180	1750	36000	4350	423000
20	2800	180	1360	3400	185	1700	33000	3420	305000
21	3000	200	1620	3600	190	1850	23400	3000	190000
22	3100	250	2090	3500	190	1800	20500	1660	91900
23	2900	190	1490	3400	200	1840	41100	3600	399000
24	2800	180	1360	3400	220	2020	33200	4100	368000
25	2900	190	1490	3500	250	2360	23800	4460	287000
26	2800	180	1360	3700	280	2800	18900	5210	266000
27	2700	170	1240	3900	300	3160	16200	4490	196000
28	2700	170	1240	4100	400	4430	14400	1330	51700
29	2600	160	1120	---	---	---	12600	880	29900
30	2600	160	1120	---	---	---	11900	930	29900
31	2600	160	1120	---	---	---	10800	1090	31800
TOTAL	79400	---	36238	93100	---	49500	614900	---	5039440

06805500 PLATTE RIVER AT LOUISVILLE, NE--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		APRIL			MAY			JUNE	
1	10100	1140	31100	7660	390	8170	3760	300	3050
2	9960	1040	28000	21500	2850	165000	3620	270	2640
3	10800	730	21300	18300	2480	123000	4260	350	4030
4	9730	750	19700	13800	2400	89400	4100	270	2990
5	9510	760	19500	13100	3100	110000	4190	300	3390
6	8930	650	15700	10200	1740	47900	3350	500	4520
7	8300	570	12800	8800	490	11600	3200	510	4410
8	7210	600	11700	7600	360	7390	2990	350	2830
9	8130	700	15400	7380	670	13400	3080	330	2740
10	7940	620	13300	6860	1040	19300	3470	450	4220
11	7750	660	13800	14300	1840	71000	4070	560	6150
12	8090	3140	68600	22500	3350	204000	4010	300	3250
13	9440	3700	94300	16200	2860	125000	4310	310	3610
14	10600	2450	70100	13100	2040	72200	4110	310	3440
15	9370	1120	28300	10600	870	24900	3950	360	3840
16	10400	1280	35900	8970	570	13800	3710	350	3510
17	9090	1230	30200	7890	500	10700	3010	330	2680
18	7690	660	13700	7560	550	11200	3420	330	3050
19	7730	420	8760	6460	380	6630	3430	450	4170
20	7370	500	9950	7400	430	8590	4580	830	10300
21	8910	640	15400	7560	570	11600	4590	950	11800
22	9680	900	23500	6750	540	9840	5380	1250	18200
23	10600	760	21800	6120	430	7100	5780	1560	24300
24	8600	660	15300	5690	350	5380	5470	1870	27600
25	9850	1420	37800	4780	250	3230	6760	1790	32700
26	9920	1260	33700	5070	300	4110	6680	1120	20200
27	8680	650	15200	4310	230	2680	6850	1060	19600
28	8090	560	12200	4160	260	2920	8260	890	19800
29	8460	440	10000	3970	240	2570	11400	1170	36000
30	8190	360	7960	3620	220	2150	10900	1340	39400
31	---	---	---	3580	220	2130	---	---	---
TOTAL	269120	---	754970	285790	---	1196890	146690	---	328420

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JULY			AUGUST			SEPTEMBER	
1	10300	1450	40300	3040	250	2050	2380	210	1350
2	10700	1460	42200	2580	260	1810	2290	220	1360
3	10200	1260	34700	2840	470	3600	2070	250	1400
4	9480	620	15900	3420	600	5540	2010	250	1360
5	8000	440	9500	3180	410	3520	1890	190	970
6	7930	350	7490	3610	350	3410	1840	190	944
7	7420	310	6210	2790	300	2260	1480	150	599
8	7600	360	7390	1970	220	1170	1120	110	333
9	7170	400	7740	1610	190	826	1480	150	599
10	6260	350	5920	1670	150	676	1420	200	767
11	6240	250	4210	1400	130	491	1340	150	543
12	6020	310	5040	1420	190	728	1340	150	543
13	5040	420	5720	945	130	332	1360	160	588
14	4740	1050	13400	1160	180	564	1530	260	1070
15	8840	1560	37200	1360	210	771	1820	240	1180
16	8680	1000	23400	1310	160	566	1920	180	933
17	6000	660	10700	1140	200	616	1990	170	913
18	4650	360	4520	1260	250	850	2280	290	1780
19	4080	300	3300	1710	240	1110	2070	240	1340
20	3960	260	2780	1240	150	502	2250	220	1340
21	3530	340	3240	2700	2330	17000	2360	260	1660
22	3320	160	1430	3510	2760	26200	2120	220	1260
23	3120	100	842	4330	2200	25700	2040	150	826
24	2980	120	966	3340	1270	11500	2250	150	911
25	2920	200	1580	3220	400	3480	2260	160	976
26	2930	290	2290	3050	520	4280	2070	150	838
27	3200	400	3460	3910	950	10000	2270	370	2270
28	2930	220	1740	3820	970	10000	2210	430	2570
29	2720	150	1100	3350	570	5160	2190	280	1660
30	2800	190	1440	3610	500	4870	2230	250	1510
31	2620	220	1560	2690	290	2110	---	---	---
TOTAL	176380	---	307268	77185	---	151692	57880	---	34393

06805500 PLATTE RIVER AT LOUISVILLE, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)
OCT							
12...	1325	2360	15.0	170	1080	--	--
28...	1240	3710	7.0	323	3240	--	--
NOV							
07...	1330	4230	8.5	440	5030	--	--
18...	1315	4740	2.5	336	4300	--	--
MAR							
12...	1300	16800	3.0	3080	140000	15	17
27...	1400	16600	6.0	3290	147000	--	--
APR							
12...	1315	7960	7.5	3730	80200	--	--
24...	1115	8580	17.5	658	15200	--	--
MAY							
08...	1245	7640	21.5	355	7320	--	--
22...	1420	7440	18.0	526	10600	--	--
JUN							
13...	1100	4690	23.0	332	4200	--	--
28...	1330	9120	27.5	836	20600	26	34
30...	1130	11700	26.5	1400	44200	--	--
JUL							
09...	1430	7950	23.5	320	6870	--	--
24...	1050	2920	24.0	110	867	--	--
AUG							
07...	1200	3200	29.0	352	3040	--	--
21...	1420	2890	27.0	3230	25200	43	60
SEP							
05...	1115	1920	25.0	178	923	--	--
23...	1215	1730	22.0	139	649	--	--

DATE	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70344)	SED. SUSP. FALL DIAM. % FINER THAN .500 MM (70345)	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM (70346)
OCT						
12...	--	35	--	--	--	--
28...	--	74	83	88	94	98
NOV						
07...	--	68	77	86	96	100
18...	--	52	56	74	100	--
MAR						
12...	29	69	74	84	96	99
27...	--	17	22	36	54	81
APR						
12...	--	11	12	37	47	82
24...	--	85	89	92	96	100
MAY						
08...	--	70	78	82	94	100
22...	--	71	78	90	96	100
JUN						
13...	--	37	87	90	100	--
28...	53	80	98	99	100	--
30...	--	53	75	80	90	100
JUL						
09...	--	83	92	98	100	--
24...	--	95	97	100	--	--
AUG						
07...	--	74	97	99	100	--
21...	83	99	99	100	--	--
SEP						
05...	--	71	83	100	--	--
23...	--	31	36	36	45	82

06805500 PLATTE RIVER AT LOUISVILLE, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	NUMBER OF SAM-PLING POINTS (00063)	BED MAT. FALL DIAM. % FINER THAN .062 MM (80158)	BED MAT. FALL DIAM. % FINER THAN .125 MM (80159)	BED MAT. FALL DIAM. % FINER THAN .250 MM (80160)	BED MAT. FALL DIAM. % FINER THAN .500 MM (80161)	BED MAT. FALL DIAM. % FINER THAN 1.00 MM (80162)	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM (80171)	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM (80172)
OCT												
12...	1325	2360	6	--	0	13	40	78	89	98	100	--
28...	1240	3710	3	--	0	4	44	76	90	97	100	--
NOV												
07...	1330	4230	4	0	2	20	57	86	92	98	100	--
18...	1315	4740	3	0	2	19	57	83	96	99	100	--
MAR												
12...	1300	16800	8	--	0	18	53	82	93	98	100	--
27...	1400	16600	7	0	1	36	82	93	97	98	99	100
APR												
12...	1315	7960	3	0	2	18	47	82	92	98	100	--
24...	1115	6580	4	--	0	8	45	84	94	98	100	--
MAY												
08...	1245	7640	4	--	0	17	52	79	92	97	99	100
22...	1420	7040	4	0	6	26	67	83	92	98	100	--
JUN												
13...	1100	8690	3	5	17	30	68	93	98	99	100	--
28...	1330	9120	6	--	0	13	53	89	95	98	100	--
30...	1130	11700	4	--	0	24	60	81	94	99	100	--
JUL												
09...	1430	7950	4	0	1	28	56	89	97	99	100	--
24...	1050	2920	3	--	0	15	40	75	89	96	99	100
AUG												
07...	1200	3200	3	0	10	28	49	77	83	94	99	100
21...	1420	2890	3	0	3	31	42	55	66	84	97	100
SEP												
05...	1115	1920	2	--	0	8	68	80	91	98	100	--
23...	1215	1730	3	--	0	12	70	86	92	97	99	100

06806500 WEEPING WATER CREEK AT UNION, NE

LOCATION.--Lat 40°47'35", long 95°54'40", in NW1/4 sec.36, T.10 N., R.13 E., Cass County, Hydrologic Unit 10240001, near left bank on downstream side of pier of bridge on U.S. Highways 73 and 75, 1.5 mi (2.4 km) southeast of Union and 2.8 mi (4.5 km) downstream from South Branch Weeping Water Creek.

DRAINAGE AREA.--241 mi² (624 km²).

PERIOD OF RECORD.--February 1950 to current year.

REVISED RECORDS.--WSP 2110: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 929.72 ft (283.379 m) National Geodetic Vertical Datum of 1929. Prior to May 14, 1951, nonrecording gage at site 2 mi (3 km) upstream at different datum. May 15, 1951, to Aug. 22, 1960, water-stage recorder for stages above 7.9 ft (2.41 m) and nonrecording gage at present site and datum.

REMARKS.--Records good except those for winter period, which are poor.

AVERAGE DISCHARGE.--29 years, 85.0 ft³/s (2.407 m³/s), 61,580 acre-ft/yr (75.9 hm³/yr); median of yearly mean discharges, 69 ft³/s (1.954 m³/s), 50,000 acre-ft/yr (61.6 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 60,300 ft³/s (1,710 m³/s) May 9, 1950, gage height, 26.80 ft (8.169 m), from floodmark, present site and datum, from rating curve extended above 12,000 ft³/s (340 m³/s) on basis of measurement of peak flow through bridges and over highway embankment; minimum daily, 0.1 ft³/s (0.003 m³/s) Sept. 10-12, 14, 15, 17, 18, 1955.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 17,000 ft³/s (481 m³/s) Mar. 3, time unknown, gage height, 24.70 ft (7.529 m), from highwater mark, backwater from ice, no other peak above base of 3,000 ft³/s (85.0 m³/s); minimum daily discharge, 14 ft³/s (0.40 m³/s) Sept. 29, 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	62	50	42	31	30	800	185	127	68	56	44	36
2	60	49	38	30	34	1500	180	397	68	56	44	32
3	58	56	35	33	32	10000	175	367	65	57	43	28
4	57	48	40	34	30	3000	171	150	64	57	40	26
5	56	47	44	32	32	1600	160	130	63	69	38	25
6	54	43	38	35	40	2500	150	125	58	64	34	25
7	54	41	35	34	35	2240	140	120	54	62	32	23
8	54	43	33	37	31	358	130	116	59	408	30	22
9	52	47	35	39	33	247	124	110	70	102	26	23
10	52	48	42	40	37	462	123	104	77	67	31	22
11	52	45	49	41	41	299	131	100	70	56	31	20
12	50	45	53	43	38	627	143	98	65	51	27	20
13	48	51	53	37	40	508	132	96	60	49	26	20
14	48	48	50	33	44	303	117	94	57	45	29	24
15	48	47	51	37	40	238	111	92	58	649	39	22
16	47	53	48	37	30	235	108	92	55	182	35	21
17	47	72	46	39	35	233	105	84	57	76	34	20
18	47	69	47	44	40	1420	103	89	70	61	32	19
19	46	58	48	47	54	1220	103	95	63	54	34	18
20	47	50	49	40	50	356	113	90	82	51	28	18
21	48	62	51	36	45	344	122	84	75	48	27	17
22	50	55	46	43	49	447	106	80	104	46	43	16
23	57	49	45	33	47	1740	99	76	339	47	32	16
24	53	49	52	31	45	357	99	72	271	106	28	16
25	51	47	59	35	47	270	740	74	88	80	27	15
26	49	43	47	37	60	224	365	75	72	58	46	15
27	48	40	43	35	80	210	150	73	67	50	31	15
28	48	37	44	31	400	200	131	68	77	47	31	15
29	46	45	40	28	---	195	177	68	67	67	33	14
30	47	44	35	29	---	190	141	66	59	50	30	14
31	47	---	32	26	---	185	---	66	---	48	28	---
TOTAL	1583	1481	1370	1109	1519	32508	4814	3478	2502	2899	1033	619
MEAN	51.1	49.4	44.2	35.8	54.3	1049	160	112	83.4	93.5	33.3	20.6
MAX	62	72	59	47	400	10000	740	397	339	649	46	36
MIN	46	37	32	26	30	185	99	66	54	45	26	14
AC-FT	3140	2940	2720	2200	3010	64480	9550	6900	4960	5750	2050	1230

CAL YR 1978 TOTAL 67232 MEAN 184 MAX 13000 MIN 13 AC-FT 133400
WTR YR 1979 TOTAL 54915 MEAN 150 MAX 10000 MIN 14 AC-FT 108900

06807000 MISSOURI RIVER AT NEBRASKA CITY, NE

LOCATION.--Lat 40°40'55", long 95°50'46", in NW1/4NE1/4 sec.9, T.8 N., R.14 E., Otoe County, Hydrologic Unit 10240001, on right bank 0.7 mi (1.1 km) upstream from Waubonsie Highway Bridge at Nebraska City, and at mi 562.6 (905.2 km).

DRAINAGE AREA.--410,000 mi² (1,062,000 km²), approximately. The 3,959 mi² (10,254 km²) in Great Divide basin are not included.

PERIOD OF RECORD.--August 1929 to current year. Gage-height records collected in this vicinity from August 1878 to December 1899 are contained in reports of Missouri River Commission.

REVISED RECORDS.--WSP 761: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 905.36 ft (275.954 m) National Geodetic Vertical Datum of 1929, supplementary adjustment of 1954. See WSP 1918 or 1919 for history of changes prior to Apr. 1, 1963.

REMARKS.--Records good except those for winter period, which are poor. Flow regulated by upstream main-stem reservoirs. National Weather Service gage-height telemeter at station.

AVERAGE DISCHARGE.--50 years, 35,580 ft³/s (1,008 m³/s), 25,780,000 acre-ft/yr (31.8 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 414,000 ft³/s (11,700 m³/s) Apr. 19, 1952; maximum gage height, 27.66 ft (8.431 m) Apr. 18, 1952; minimum discharge, 1,600 ft³/s (45.3 m³/s) Dec. 31, 1946 (discharge measurement); minimum gage height observed, -0.28 ft (-0.085 m) Dec. 24, 1960, result of freezeup.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 122,000 ft³/s (3,460 m³/s) Mar. 19, gage height, 19.93 ft (6.075 m); minimum daily, 20,500 ft³/s (581 m³/s) Jan. 18-28; minimum gage height, 6.03 ft³/s (0.17 m³/s) Jan. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	56100	59300	59300	27800	24000	35000	68200	53100	53400	53100	47000	46100
2	56200	58700	59000	27700	24500	36000	64200	60000	53200	53000	46800	47400
3	56500	58400	55700	27800	25000	50000	64000	70400	51300	53000	45500	46500
4	57400	58800	51600	27500	25000	45000	62600	61200	51900	52000	45600	44800
5	58300	58600	47200	26700	25000	41700	61600	54800	51200	51200	45300	44200
6	59800	59200	44200	26600	25500	39500	61700	53700	51300	50000	44300	47400
7	59200	59000	40000	26600	26000	49800	59300	58400	51500	49700	43900	46800
8	58200	59400	37400	26500	26000	40400	57700	54200	52700	50500	43200	44900
9	57700	58800	34400	26500	26500	36700	55000	58800	52500	49500	42300	42700
10	57100	58800	31500	26500	26500	37400	53800	56000	53700	48000	42800	42000
11	57800	59700	30100	26500	27000	35500	52100	59700	54700	47900	42900	41300
12	59500	60500	30500	26000	27000	39000	52500	60900	55000	47400	42500	41200
13	60100	60900	31200	26000	27000	45800	54000	68000	54300	46900	43400	41600
14	59700	61000	31500	23500	28000	51400	54000	63900	53900	47400	44800	42300
15	59200	62300	31900	22500	28000	50900	53100	64100	53700	51600	45600	42600
16	59000	62900	31300	21500	27500	49100	52100	64000	53200	51500	44900	43300
17	58900	62700	31800	21000	27500	57100	53300	62400	53600	49100	44300	45600
18	59000	61400	31300	20500	27000	73200	54100	63200	53600	47900	44600	46300
19	59800	60000	31800	20500	28500	114000	53200	62500	57900	47300	44400	46500
20	59400	59100	31800	20500	29000	110000	51600	62100	56300	46500	47200	46100
21	59500	58400	32200	20500	29000	92700	51500	61000	56700	45900	53200	46000
22	60000	57300	31800	20500	29000	76000	52200	58900	56900	44100	52700	45900
23	60400	58000	31300	20500	29500	95700	52900	58000	56100	43800	52700	45400
24	60500	59300	31100	20500	30000	109000	51300	57000	54600	45900	50000	46100
25	60300	58400	30100	20500	31000	92700	52400	56200	53600	45200	47800	46500
26	60100	58200	29200	20500	32000	75600	53000	55700	53000	44600	47400	45500
27	60000	58300	28700	20500	33000	67900	51800	55000	52400	44800	47800	44600
28	60000	59200	29900	20500	34000	65000	51300	54100	52700	44500	49500	44900
29	60100	59700	30500	21500	---	64700	51900	54200	53800	44500	48200	45300
30	59300	60000	30100	22500	---	71600	51800	54100	54500	45900	46100	45000
31	59500	---	29000	23000	---	71800	---	53500	---	47600	45200	---
TOTAL	1828600	1786300	1107400	729700	778000	1920200	1658200	1829100	1613200	1489900	1431900	1344800
MEAN	58990	59540	35720	23540	27790	61940	55270	59000	53770	48060	46190	44830
MAX	60500	62900	59300	27800	34000	114000	68200	70400	57900	53100	53200	47400
MIN	56100	57300	28700	20500	24000	35000	51300	53100	51200	43800	42300	41200
AC-FT	3627000	3543000	2197000	1447000	1543000	3809000	3289000	3628000	3200000	2955000	2840000	2667000

CAL YR 1978 TOTAL 17467900 MEAN 47860 MAX 154000 MIN 12900 AC-FT 34650000
WTR YR 1979 TOTAL 17517300 MEAN 47990 MAX 114000 MIN 20500 AC-FT 34750000

06811500 LITTLE NEMAHA RIVER AT AUBURN, NE

LOCATION.--Lat 40°23'33", long 95°48'46", in NE1/4NE1/4 sec.23, T.5 N., R.14 E., Nemaha County, Hydrologic Unit 10240008, on left bank at downstream side of bridge on U.S. Highway 136, 1 mi (2 km) downstream from Longs Creek and Willow Creek and 1 mi (2 km) east of Auburn.

DRAINAGE AREA.--793 mi² (2,054 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1949 to current year.

REVISED RECORDS.--WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 889.87 ft (271.232 m) National Geodetic Vertical Datum of 1929. See WSP 2119 for history of changes prior to July 24, 1967.

REMARKS.--Records good except those for winter period, which are poor.

AVERAGE DISCHARGE.--30 years, 283 ft³/s (8.015 m³/s), 205,000 acre-ft/yr (0.253 km³/yr); median of yearly mean discharges, 200 ft³/s (5.664 m³/s), 145,000 acre-ft/yr (0.179 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 164,000 ft³/s (4,640 m³/s) May 9, 1950, gage height, 27.65 ft (8.428 m), from floodmark, from rating curve extended above 49,000 ft³/s (1,390 m³/s) on basis of computations of peak flow through bridge and culvert openings and over highway and railway embankments at gage heights 24.96 ft (7.608 m) and 27.65 ft (8.428 m); minimum daily, 0.87 ft³/s (0.025 m³/s) July 6-8, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 5,000 ft³/s (142 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Mar. 3	0900	*53800	108	a24.70	7.529	Mar. 23	0800	30700	869	22.45	6.843
Mar. 18	2300	8100	229	b15.00	4.572						

a Highwater mark.

b From graph based on observer readings.

Minimum daily discharge, 23 ft³/s (0.65 m³/s) Sept. 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	130	104	152	84	56	1000	436	338	123	116	155	107
2	125	103	150	76	80	3000	583	779	117	122	253	95
3	146	102	140	76	74	30000	494	1460	115	114	155	77
4	129	99	140	82	64	4360	440	672	115	112	129	71
5	132	101	135	70	70	1750	418	361	112	140	109	66
6	102	98	130	76	72	3450	386	317	111	158	96	63
7	93	93	135	76	86	5450	360	288	107	142	88	62
8	70	92	130	76	84	1000	350	264	110	402	80	62
9	88	95	130	80	90	600	338	246	118	247	72	54
10	91	96	135	78	94	704	323	238	133	172	87	43
11	100	88	130	82	96	541	330	244	131	261	179	51
12	91	95	130	84	90	704	367	226	121	145	116	65
13	91	107	130	70	94	690	369	212	108	125	93	77
14	88	103	130	60	100	555	320	201	105	110	110	64
15	84	96	130	72	84	396	301	191	102	1650	114	50
16	79	105	120	70	70	342	291	183	95	1110	105	36
17	98	156	110	80	80	356	284	177	96	340	97	23
18	107	170	120	90	90	4360	276	234	109	238	81	44
19	121	141	110	100	100	4090	275	210	119	187	78	55
20	116	110	100	100	96	884	281	193	120	161	75	51
21	107	106	110	110	92	559	322	178	122	130	68	49
22	103	108	110	120	102	904	291	164	111	104	67	46
23	112	110	100	100	106	15800	270	157	469	105	62	42
24	105	111	80	100	100	2130	264	151	339	263	60	45
25	96	121	90	110	110	884	298	146	204	431	60	46
26	89	130	90	98	120	657	564	144	152	249	70	49
27	84	135	94	90	150	546	351	140	134	171	91	52
28	86	140	96	80	300	501	301	135	132	145	72	54
29	84	163	94	74	---	1550	485	130	136	307	55	57
30	82	157	88	80	---	750	424	125	123	196	57	57
31	89	---	86	60	---	456	---	125	---	215	65	---
TOTAL	3118	3435	3625	2604	2744	88969	10792	8629	4189	8364	2995	1713
MEAN	101	115	117	84.0	98.0	2870	360	272	140	270	96.6	57.1
MAX	146	170	152	120	300	30000	583	1460	469	1650	253	107
MIN	70	88	80	60	56	342	264	125	95	104	55	23
AC-FT	6180	6810	7190	5170	5440	176500	21410	16720	8310	16590	5940	3400

CAL YR 1978 TOTAL 218972 MEAN 600 MAX 21500 MIN 48 AC-FT 434300
WTR YR 1979 TOTAL 140977 MEAN 386 MAX 30000 MIN 23 AC-FT 279600

06811500 LITTLE NEMAHA RIVER AT AUBURN, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water year 1973 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (JTU) (00070)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT 19...	1420	137	603	8.1	12.0	10	11.5	2.4	K12000	K1400
NOV 15...	1430	98	597	7.5	7.0	5	12.5	2.1	K34000	6900
DEC 13...	1340	133	628	7.4	.0	15	10.4	1.4	K200	2900
JAN 10...	1300	119	720	7.3	.0	5	8.8	2.1	K2660	788
FEB 09...	1040	171	610	7.4	.0	7	8.2	2.0	1670	K480
MAR 05...	1430	1550	220	6.8	1.0	200	11.2	9.9	K3000	60000
APR 04...	1100	576	556	8.0	6.0	150	10.8	3.3	625	6800
MAY 01...	1215	338	545	8.1	15.0	150	8.4	3.2	2300	6000
30...	1030	125	615	8.2	20.5	30	8.6	2.8	1470	500
JUN 29...	1100	147	615	8.3	24.5	70	8.4	4.4	13000	48000
JUL 25...	0730	490	350	7.9	22.0	700	6.1	7.2	160000	200000
AUG 21...	1130	65	575	8.2	24.0	8	9.4	4.2	K6500	660
SEP 19...	0800	50	588	8.0	14.0	10	8.7	1.6	1400	1000

K Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)
OCT 19...	17	354	.48	131	1.6	.01	1.9	1.9	3.5	.23
NOV 15...	14	390	.53	103	1.7	.23	.25	.48	2.2	.21
DEC 13...	13	358	.49	129	3.3	.10	.45	.55	3.9	.25
JAN 10...	19	408	.55	131	3.2	.20	.62	.82	4.0	.29
FEB 09...	17	--	.52	176	3.0	.49	.28	.77	3.8	.31
MAR 05...	4.3	111	.15	465	1.7	.72	.88	1.6	3.3	.36
APR 04...	11	354	.48	551	3.5	.16	1.2	1.4	4.9	.41
MAY 01...	10	344	.47	314	2.7	.04	.74	.78	3.5	.44
30...	13	398	.54	134	2.0	.06	.71	.77	2.8	.33
JUN 29...	10	370	.50	146	2.0	.12	.42	.54	2.5	.33
JUL 25...	8.7	230	.31	304	2.0	.26	.58	.84	2.8	.72
AUG 21...	19	--	.48	62.0	.71	.40	1.5	1.9	2.6	.30
SEP 19...	15	385	.52	52.7	1.1	.13	.45	.58	1.7	.20

06811500 LITTLE NEMAHA RIVER AT AUBURN, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	ALKALINITY (MG/L AS CACO3) (00410)
NOV									
15...	1430	300	0	83	22	34	.9	3.6	270
FEB									
09...	1040	260	9	74	18	34	.9	3.0	250
MAY									
30...	1030	270	23	78	19	36	.9	4.7	250
AUG									
21...	1130	230	0	63	17	33	1.0	5.1	230

DATE	SULFATE DISSOLVED (MG/L AS SO4) (00945)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	PHOSPHORUS, DISSOLVED (MG/L AS P) (00666)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BARIUM, DISSOLVED (UG/L AS BA) (01005)	BORON, DISSOLVED (UG/L AS B) (01020)
NOV									
15...	68	.3	12	--	1.7	.18	3	100	80
FEB									
09...	60	.2	24	301	--	.26	--	--	40
MAY									
30...	63	.4	12	386	2.0	.22	4	100	70
AUG									
21...	64	.3	13	353	--	.02	--	--	80

DATE	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	MERCURY DISSOLVED (UG/L AS HG) (71890)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	SILVER, DISSOLVED (UG/L AS AG) (01075)	ZINC, DISSOLVED (UG/L AS ZN) (01090)
NOV									
15...	1	0	10	100	--	<.5	0	0	0
FEB									
09...	--	--	10	510	--	--	--	--	--
MAY									
30...	10	7	10	10	.1	--	3	0	10
AUG									
21...	--	--	<10	40	--	--	--	--	--

06813500 MISSOURI RIVER AT RULO, NE

LOCATION.--Lat 40°03'14", long 95°25'12", in NW1/4NW1/4 sec.17, T.1 N., R.18 E., Richardson County, Hydrologic Unit 10240005, on downstream end of middle pier of bridge on U.S. Highway 159 at Rulo, 3.2 mi (5.1 km) upstream from Nemaha River and at mi 498.0 (801.3 km).

DRAINAGE AREA.--414,900 mi^2 (1,075,000 km^2), approximately. The 3,959 mi^2 (10,254 km^2) in Great Divide basin are not included.

PERIOD OF RECORD.--October 1949 to current year in reports of Geological Survey. Gage-height record collected at site 80 ft (24 m) upstream January 1886 to December 1899 published in reports of Missouri River Commission; September 1929 to September 1950 in files of Kansas City Office of Corps of Engineers.

GAGE.--Water-stage recorder. Datum of gage is 837.23 ft (255.188 m) National Geodetic Vertical Datum of 1929. Prior to Sept. 13, 1950, nonrecording gage at site 80 ft (24 m) upstream at same datum.

REMARKS.--Records good except those for winter period, which are poor. Flow regulated by upstream main-stem reservoirs. Several observations of water temperature were made during the year. National Weather Service gage height telemeter at station.

AVERAGE DISCHARGE.--30 years, 39,650 ft^3/s (1,123 m^3/s), 28,730,000 acre-ft/yr (35.4 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 358,000 ft^3/s (10,100 m^3/s) Apr. 22, 1952, gage height, 25.60 ft (7.803 m); minimum daily, 4,420 ft^3/s (125 m^3/s) Jan. 13, 1957; minimum gage height, 0.65 ft (0.198 m) Jan. 7, 1971, result of freezeup.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in 1881 reached a stage of 22.9 ft (6.98 m), from floodmark, discharge not determined.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 136,100 ft^3/s (3,850 m^3/s) Mar. 23, gage height, 20.33 ft (6.197 m); minimum daily, 21,000 ft^3/s (595 m^3/s) Jan. 18-29; minimum gage height, 6.32 ft (1.926 m) Jan. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	57300	59200	60200	28700	24000	38000	77100	53300	54200	53800	49700	49300
2	57000	59000	59400	28500	24500	42700	73200	55600	54400	52700	50800	52500
3	57100	58500	56600	27800	25000	80000	69000	77300	53600	52600	47300	48500
4	57000	58100	52400	27300	25000	85000	66700	70200	52600	52400	46100	45900
5	57200	59200	47500	26900	25000	58400	64700	60300	53500	53700	46100	45200
6	58400	59800	43500	26500	25000	53100	63500	57000	52900	52200	45000	46800
7	60300	59900	39400	26500	25500	79000	61800	57400	53300	51200	44900	53900
8	59000	60100	36400	26500	26000	57600	59600	58000	54000	54500	44400	47600
9	58500	59700	34000	26500	26000	46500	57200	56900	55100	55000	43500	44200
10	57500	59000	31400	26500	26500	44700	55800	57800	56000	49800	43500	42900
11	57500	59700	29800	26500	26500	44600	54000	58600	56700	49400	43900	42300
12	58000	61400	29600	26500	27000	46300	53200	65400	56700	48100	43300	41900
13	61500	62600	30700	25500	27000	55400	54000	71200	55500	47700	42800	42200
14	60800	62000	31400	24000	27500	65300	55600	66900	55000	47300	44000	43200
15	60100	61800	31600	23000	28000	60200	55100	66400	55100	56400	45500	44300
16	59600	61500	31200	22000	28000	52200	52600	67800	55200	59700	45700	44500
17	59600	62300	31300	21500	28000	51400	53800	66000	55100	52500	44200	45800
18	59700	62200	32100	21000	27500	90300	56000	65200	55100	49300	43400	46900
19	60900	62000	32100	21000	28000	120000	56200	66800	59300	47900	43900	46800
20	60500	61700	32100	21000	28500	125000	54200	65700	57500	46900	44400	46700
21	60200	60800	32000	21000	29000	129000	54800	65700	58500	46100	50900	46600
22	60300	58900	32300	21000	29500	113000	55700	63100	57000	45100	54200	47700
23	61400	57500	32100	21000	30000	128000	55800	61200	60200	42900	51600	47900
24	61400	58900	32100	21000	31000	135000	55500	59900	60500	52800	51500	47200
25	60700	58500	31700	21000	32000	132000	54000	58400	54600	53800	48500	47300
26	60300	59400	30900	21000	33000	114000	60200	57700	52200	47300	48000	47100
27	59900	59500	30200	21000	34000	91500	55700	56900	52200	45500	47500	46300
28	60500	58800	30400	21000	35000	82900	54600	55500	53100	46000	49000	46100
29	60000	59400	31100	21000	---	80500	54100	54900	55800	48100	51000	46100
30	59700	60100	30800	22000	---	82000	54200	55600	55700	49100	47200	46200
31	59200	---	29400	23000	---	83600	---	54200	---	48800	46000	---
TOTAL	1841100	1801500	1115700	737700	782000	2467200	1747900	1906900	1660600	1558600	1447800	1389900
MEAN	59390	60050	35990	23800	27930	79590	58260	61510	55350	50280	46700	46330
MAX	61500	62600	60200	28700	35000	135000	77100	77300	60500	59700	54200	53900
MIN	57000	57500	29400	21000	24000	38000	52600	53300	52200	42900	42800	41900
AC-FT	3652000	3573000	2213000	1463000	1551000	4894000	3467000	3782000	3294000	3091000	2872000	2757000

CAL YR 1978 TOTAL 18453800 MEAN 50560 MAX 160000 MIN 14000 AC-FT 36600000
WTR YR 1979 TOTAL 18456900 MEAN 50570 MAX 135000 MIN 21000 AC-FT 36610000

06814000 TURKEY CREEK NEAR SENECA, KS

LOCATION.--Lat 39°56'52", long 96°06'30", in SW1/4NW1/4SW1/4 sec.20, T.1 S., R.12 E., Nemaha County, Hydrologic Unit 10240007, at downstream side of highway bridge, 2.0 mi (3.2 km) downstream from Clear Creek, 5.0 mi (8.0 km) upstream from Big Nemaha River, and 8.0 mi (12.9 km) northwest of Seneca.

DRAINAGE AREA.--276 mi² (715 km²).

PERIOD OF RECORD.--October 1948 to current year. Monthly discharge only for some periods, published in WSP 1310.

GAGE.--Water-stage recorder. Datum of gage is 1,037.53 ft (316.239 m), National Geodetic Vertical Datum of 1929. Prior to Oct. 19, 1956, water-stage recorder (occasional operation only) and nonrecording gage on former channel 400 ft (120 m) south of present site at present datum. Oct. 19, 1956, to June 15, 1957, nonrecording gage at highway bridge 1.2 mi (1.9 km) upstream at different datum. June 16, 1957, to Mar. 27, 1958, nonrecording gage at present site and datum.

REMARKS.--Records fair except those for winter months, and period of no gage-height record Aug. 18 to Sept. 18, which are poor.

AVERAGE DISCHARGE.--31 years, 125 ft³/s (3.540 m³/s), 90,560 acre-ft/yr (0.112 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21,400 ft³/s (606 m³/s) Oct. 11, 1973, gage height, 24.77 ft (7.550 m); no flow at times in 1956-57, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,100 ft³/s (87.8 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Mar. 3	1000	*11500	326	23.38	7.126	Mar. 23	1800	6760	191	21.83	6.654
Mar. 18	1800	6760	191	21.83	6.654						

Minimum daily discharge, 4.5 ft³/s (0.13 m³/s) Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	14	34	15	18	800	243	133	58	213	102	35
2	20	17	29	15	18	1320	271	1030	55	145	75	45
3	19	16	17	16	18	9240	249	1050	51	85	63	40
4	18	16	23	17	18	3410	239	451	47	64	54	30
5	17	16	25	17	18	939	210	326	45	363	46	25
6	16	19	23	18	18	1140	169	275	45	237	39	22
7	15	19	20	18	18	1400	164	230	44	106	33	20
8	16	17	18	16	18	472	156	200	188	86	30	18
9	16	16	17	18	18	327	133	177	56	70	28	16
10	16	16	18	18	18	304	127	175	55	59	25	15
11	16	17	19	18	20	231	157	140	51	50	25	14
12	14	15	20	18	19	297	203	110	46	39	24	13
13	12	18	21	19	21	294	150	110	38	31	24	12
14	13	18	21	19	24	229	117	120	35	24	55	12
15	13	17	21	19	23	152	101	90	33	342	50	12
16	13	18	21	20	20	130	92	80	32	202	37	11
17	12	33	19	19	19	140	87	76	31	141	32	10
18	13	35	20	20	20	5140	83	314	35	50	28	9.5
19	12	27	20	20	21	2340	81	333	36	34	25	8.8
20	13	20	19	22	25	564	235	508	41	32	24	8.3
21	14	18	18	23	30	374	563	232	29	29	23	7.8
22	13	20	19	25	35	507	199	147	242	25	22	7.5
23	15	21	18	25	45	5130	138	140	1160	240	22	7.5
24	14	22	17	22	55	2300	127	108	895	884	22	6.6
25	15	40	18	21	70	721	118	92	231	787	22	6.5
26	14	291	18	21	100	544	112	91	144	233	25	6.1
27	13	155	18	20	150	439	92	87	110	138	30	5.7
28	14	57	18	19	400	398	94	92	851	130	30	5.0
29	14	49	17	18	---	359	263	72	878	216	100	4.7
30	14	39	15	18	---	318	210	65	185	266	90	4.5
31	13	---	15	18	---	258	---	61	---	349	50	---
TOTAL	459	1096	616	594	1277	40217	5183	7105	5747	5670	1255	438.5
MEAN	14.8	36.5	19.9	19.2	45.6	1297	173	229	192	183	40.5	14.6
MAX	22	291	34	25	400	9240	563	1050	1160	884	102	45
MIN	12	14	15	15	18	130	81	61	29	24	22	4.5
AC-FT	910	2170	1220	1180	2530	79770	10280	14090	11400	11250	2490	870

CAL YR 1978 TOTAL 79894.0 MEAN 219 MAX 10800 MIN 7.0 AC-FT 158500
WTR YR 1979 TOTAL 69657.5 MEAN 191 MAX 9240 MIN 4.5 AC-FT 138200

06814500 NORTH FORK BIG NEMAHA RIVER AT HUMBOLDT, NE

LOCATION.--Lat 40°09'25", long 95°56'40", in NW1/4NE1/4 sec.10, T.2 N., R.13 E., Richardson County, Hydrologic Unit 10240008, on right pile bent of bridge on State Highway 105 at south edge of Humboldt, 800 ft (244 m) downstream from Long Branch Creek.

DRAINAGE AREA.--548 mi² (1,419 km²).

PERIOD OF RECORD.--October 1952 to current year. Prior to October 1967 published as North Fork Nemaha River at Humboldt.

REVISED RECORDS.--WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 944.44 ft (287.865 m) National Geodetic Vertical Datum of 1929. Prior to Apr. 5, 1968, nonrecording gage at present site and datum.

REMARKS.--Records fair except those for winter period, which are poor.

AVERAGE DISCHARGE.--27 years, 197 ft³/s (5.579 m³/s), 142,700 acre-ft/yr (0.176 km³/yr); median of yearly mean discharges, 110 ft³/s (3.115 m³/s), 79,700 acre-ft/yr (98.3 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 51,000 ft³/s (1,440 m³/s) July 10, 1958, gage height, 31.70 ft (9.662 m); minimum daily, 0.07 ft³/s (0.002 m³/s) July 22, 23, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 5,000 ft³/s (142 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Mar. 3	0400	*27200	770	a22.27	6.788	June 23	1000	5440	154	9.90	3.018
Mar. 18	1430	7150	202	a11.20	3.414	July 15	0700	5170	146	9.70	2.957
Mar. 23	0900	11800	334	14.00	4.267	July 24	1100	6120	173	10.40	3.170

a From floodmark.

Minimum daily discharge, 30 ft³/s (0.85 m³/s) Sept. 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	75	50	75	47	40	2010	268	209	74	215	143	885
2	69	50	79	50	54	4490	324	1710	69	164	93	126
3	67	50	76	58	50	15500	303	635	65	118	80	55
4	57	50	68	54	50	1530	271	361	69	134	76	49
5	57	54	56	50	45	1030	247	218	67	977	71	43
6	47	57	48	54	74	2680	212	175	63	307	65	49
7	47	48	44	52	70	2530	203	158	74	178	57	44
8	47	45	42	45	60	489	203	146	120	416	52	38
9	48	47	40	56	56	218	184	131	78	164	58	38
10	47	47	50	58	70	186	169	134	76	118	65	42
11	47	45	54	56	86	170	190	137	71	110	118	44
12	45	47	58	70	80	202	224	118	67	87	84	44
13	41	54	54	66	76	215	187	115	58	82	71	89
14	39	50	56	54	90	159	169	110	58	78	78	54
15	39	50	58	62	80	87	152	107	54	1640	80	46
16	39	54	54	66	56	69	143	105	58	300	69	34
17	41	96	50	62	64	71	137	93	60	433	65	40
18	42	79	68	64	74	4530	137	365	58	184	55	36
19	41	57	64	80	84	2750	134	181	62	110	55	39
20	39	55	60	72	80	937	169	131	65	87	54	34
21	41	56	54	70	74	441	221	110	62	82	54	31
22	45	62	66	86	78	598	152	95	166	80	63	38
23	54	58	68	70	76	6430	137	102	2100	140	52	34
24	47	55	50	45	74	1820	140	98	384	1760	49	38
25	48	57	60	50	180	919	134	91	137	268	51	33
26	47	60	66	66	500	624	178	74	93	158	58	33
27	47	64	60	60	900	400	137	71	84	112	62	34
28	47	67	64	54	2100	335	126	82	1970	87	80	31
29	44	85	60	52	---	655	354	71	977	84	285	30
30	47	79	50	54	---	619	264	69	254	149	62	31
31	50	---	48	50	---	324	---	74	---	289	42	---
TOTAL	1491	1728	1800	1833	5321	53018	5869	6276	7593	9111	2347	2162
MEAN	48.1	57.6	58.1	59.1	190	1710	196	202	253	294	75.7	72.1
MAX	75	96	79	86	2100	15500	354	1710	2100	1760	285	885
MIN	39	45	40	45	40	69	126	69	54	78	42	30
AC-FT	2960	3430	3570	3640	10550	105200	11640	12450	15060	18070	4660	4290

CAL YR 1978 TOTAL 166519 MEAN 456 MAX 24300 MIN 19 AC-FT 330300
WTR YR 1979 TOTAL 98549 MEAN 270 MAX 15500 MIN 30 AC-FT 195500

BIG NEMAHA RIVER BASIN

06815000 BIG NEMAHA RIVER AT FALLS CITY, NE

LOCATION.--Lat 40°02'00", long 95°35'30", on line between secs.22 and 23, T.1 N., R.16 E., Richardson County, Hydrologic Unit 10240008, near right bank on downstream side of pier of bridge on U.S. Highway 73, 1 mi (2 km) south of Falls City and 13 mi (21 km) upstream from mouth.

DRAINAGE AREA.--1,340 mi² (3,471 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1944 to current year. Prior to October 1967, published as Nemaha River at Falls City.

REVISED RECORDS.--WSP 1086: Drainage area.

GAGE.--Water-stage recorder for stages above 6.1 ft (1.86 m); nonrecording gage read twice daily. Datum of gage is 861.24 ft (262.506 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 16, 1952, nonrecording gage at same site and datum.

REMARKS.--Records fair except those for winter period, which are poor.

AVERAGE DISCHARGE.--35 years, 589 ft³/s (16.68 m³/s), 426,700 acre-ft/yr (0.526 km³/yr); median of yearly mean discharges, 400 ft³/s (11.33 m³/s), 290,000 acre-ft/yr (0.358 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 71,600 ft³/s (2,030 m³/s) Oct. 11, 1973, gage height, 31.40 ft (9.571 m); minimum daily discharge, 3.0 ft³/s (0.085 m³/s) July 9, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 15,000 ft³/s (425 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Mar. 3	1000	*44800	1270	26.10	7.955	Mar. 23	1030	29200	827	21.10	6.431
Mar. 18	1800	19700	558	17.15	5.227						

Minimum daily discharge, 73 ft³/s (2.07 m³/s) Sept. 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	175	109	227	90	100	11000	949	576	234	576	546	1360
2	158	110	230	94	140	10000	972	931	243	671	481	900
3	147	109	180	110	130	37200	977	3780	229	532	277	292
4	143	109	240	106	125	11400	880	1420	222	446	289	205
5	134	119	250	100	110	3650	817	830	216	1050	209	163
6	124	129	180	120	180	5010	703	655	214	1390	187	152
7	138	126	140	116	160	7600	628	580	284	687	171	141
8	129	126	120	100	150	2320	609	526	628	1650	134	132
9	117	115	110	110	130	1210	569	481	345	930	187	122
10	119	112	140	114	180	1240	556	459	260	542	191	107
11	114	106	160	120	200	982	576	443	227	744	203	109
12	115	109	170	130	190	934	667	434	185	446	262	104
13	109	126	145	110	180	1010	655	396	165	473	197	134
14	104	115	150	90	220	884	573	373	175	359	195	136
15	112	112	160	120	190	563	532	359	173	3210	238	129
16	107	119	110	130	120	494	503	339	177	1090	252	120
17	107	163	120	140	130	497	494	323	158	813	216	112
18	101	240	150	140	140	13200	490	345	161	671	195	104
19	93	158	140	150	170	12400	490	616	169	446	193	92
20	90	136	130	145	145	3660	532	546	177	370	152	95
21	101	96	130	140	150	1780	857	636	185	331	138	92
22	107	112	140	160	160	1820	857	410	378	305	143	95
23	114	139	120	140	170	23200	594	378	3000	300	145	92
24	112	129	90	110	200	13100	519	348	3270	4130	131	93
25	112	132	100	140	320	4600	503	315	884	3280	131	92
26	106	574	110	150	400	3130	516	305	490	1020	131	79
27	106	714	106	140	500	1740	490	289	407	563	141	73
28	106	400	125	120	1000	1450	373	284	1120	468	191	82
29	112	289	110	114	---	1360	516	267	3440	481	949	76
30	98	250	100	118	---	1690	728	257	1090	663	513	77
31	106	---	96	110	---	1280	---	248	---	513	269	---
TOTAL	3616	5383	4479	3777	5990	180404	19125	18149	18906	29150	7657	5560
MEAN	117	179	144	122	214	5819	638	585	630	940	247	185
MAX	175	714	250	160	1000	37200	977	3780	3440	4130	949	1360
MIN	90	96	90	90	100	494	373	248	158	300	131	73
AC-FT	7170	10680	8880	7490	11880	357800	37930	36000	37500	57820	15190	11030

CAL YR 1978 TOTAL 359291 MEAN 984 MAX 35400 MIN 64 AC-FT 712700
WTR YR 1979 TOTAL 302196 MEAN 828 MAX 37200 MIN 73 AC-FT 599400

06815000 BIG NEMAHA RIVER AT FALLS CITY, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1951, 1973 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (JTU) (00070)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT										
19...	1315	51	639	8.2	12.5	8	12.1	1.8	K2500	K20
NOV										
15...	1315	122	699	8.2	5.0	5	12.4	3.2	K107	128
DEC										
13...	1120	234	812	7.8	.5	10	14.4	2.9	K200	1240
JAN										
10...	1100	82	900	7.3	.5	5	10.7	2.5	K2410	116
FEB										
09...	1320	150	750	7.3	.0	5	16.0	2.2	1800	312
MAR										
05...	1700	4650	268	7.8	.5	250	9.8	9.2	K1000	48000
APR										
04...	1230	770	647	8.1	7.0	150	5.0	2.4	2230	11400
MAY										
01...	1330	616	594	8.2	15.0	200	9.0	1.9	6000	5400
30...	1300	280	575	8.2	24.5	25	13.2	6.9	350	88
JUN										
29...	1345	3204	320	7.7	23.0	1600	5.9	4.4	110000	250000
JUL										
24...	1630	8900	225	7.8	23.0	2600	4.2	7.3	300000	400000
AUG										
21...	1545	130	520	8.2	30.0	40	15.6	11	210	190
SEP										
19...	0855	94	642	8.2	16.0	15	9.3	2.3	200	240

K Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)
OCT										
19...	58	375	.51	51.6	.31	.10	.67	.77	1.1	.11
NOV										
15...	24	438	.60	144	.39	.02	.27	.29	.68	.10
DEC										
13...	24	513	.70	324	2.6	.01	.58	.59	3.2	.20
JAN										
10...	37	588	.80	132	2.6	.10	.20	.30	2.9	.23
FEB										
09...	18	--	.66	196	2.6	.41	.22	.63	3.2	.29
MAR										
05...	7.1	160	.22	2010	1.7	.56	1.0	1.6	3.3	.25
APR										
04...	13	415	.56	863	3.0	.06	.92	.98	4.0	.43
MAY										
01...	11	370	.50	615	2.0	.06	4.1	4.2	6.2	.42
30...	26	344	.47	260	.08	.03	1.4	1.4	1.5	.18
JUN										
29...	5.9	205	.28	1770	1.1	.09	7.4	7.5	8.6	.93
JUL										
24...	5.0	150	.20	3600	1.7	.29	.56	.85	2.6	.44
AUG										
21...	23	--	.41	107	.01	.02	1.4	1.4	1.4	.30
SEP										
19...	24	407	.55	104	.47	.06	.74	.80	1.3	.13

06815000 BIG NEMAHA RIVER AT FALLS CITY, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)
NOV 15...	1315	350	83	100	25	35	.8	4.8	270	87
FEB 09...	1320	340	34	100	23	33	.8	3.6	310	99
MAY 30...	1300	260	65	66	22	29	.8	4.1	190	86
AUG 21...	1545	180	33	42	19	30	1.0	5.1	150	87

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P) (00666)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)
NOV 15...	.3	4.3	--	.40	.06	2	100	90	--	0
FEB 09...	.2	20	483	--	.27	--	--	60	--	--
MAY 30...	.4	6.2	354	.05	.02	2	100	70	1	0
AUG 21...	.3	4.8	304	--	.30	--	--	90	--	--

DATE	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY SUS-PENDED RECOV-ERABLE (UG/L AS HG) (71895)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
NOV 15...	2	30	--	40	--	--	<.5	0	0	0
FEB 09...	--	20	--	150	--	--	--	--	--	--
MAY 30...	4	10	6	10	.1	.1	.0	2	0	10
AUG 21...	--	10	--	5	--	--	--	--	--	--

06821500 ARIKAREE RIVER AT HAIGLER, NE

LOCATION.--Lat 40°01'45", long 101°58'10", in NE1/4NE1/4 sec.29, T.1 N., R.41 W., Dundy County, Hydrologic Unit 10250001, on left bank 57 ft (17 m) downstream from bridge on U.S. Highway 34, 1.3 mi (2.1 km) upstream from Burlington Northern Inc. bridge, 1.8 mi (2.9 km) upstream from confluence with North Fork Republican River, 2 mi (3 km) northwest of Haigler, and 3.2 mi (5.1 km) downstream from Kansas-Nebraska State line.

DRAINAGE AREA.--1,640 mi² (4,250 km²), approximately, of which about 980 mi² (2,540 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--October 1931 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1919: 1951, 1954, 1956, 1960. WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,250.98 ft (990.899 m) National Geodetic Vertical Datum of 1929. See WSP 1919 for history of changes prior to Sept. 29, 1964.

REMARKS.--Records fair except those for periods of no gage-height record, which are poor. Natural flow affected by ground-water withdrawals and diversions for irrigation of about 1,500 acres (6.07 km²) in Colorado and by return flow from Pioneer Canal.

AVERAGE DISCHARGE.--48 years, 23.6 ft³/s (0.668 m³/s), 17,100 acre-ft/yr (21.1 hm³/yr); median of yearly mean discharges, 20 ft³/s (0.566 m³/s), 14,500 acre-ft/yr (17.9 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 50,000 ft³/s (1,420 m³/s) May 31, 1935, gage height, 11.2 ft (3.41 m), site and datum then in use, from floodmarks, from rating curve extended above 3,800 ft³/s (108 m³/s) on basis of slope-area measurement of peak flow; no flow for some periods in most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 894 ft³/s (25.3 m³/s) July 31 at 1100, gage height, 8.06 ft (2.457 m), no other peak above base of 800 ft³/s (22.7 m³/s); minimum daily, 0.35 ft³/s (0.010 m³/s) Jan. 10, 13, 16, 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.1	17	1.8	.56	.74	1.4	5.5	10	5.8	7.1	60	17
2	8.1	17	1.8	.62	.76	1.5	9.6	6.7	11	7.9	45	17
3	8.1	17	1.8	.42	.76	1.5	8.5	33	11	7.8	30	15
4	7.7	17	1.8	.43	.80	1.4	9.1	35	9.9	7.3	30	15
5	8.0	16	1.8	.48	1.0	1.4	7.5	36	11	6.2	29	14
6	7.5	16	1.6	.44	1.0	1.4	4.6	24	11	6.1	29	14
7	6.4	16	1.8	.40	.90	1.5	5.3	6.4	8.0	5.6	28	14
8	6.4	16	1.2	.42	1.0	1.4	4.1	10	15	5.3	28	13
9	[illegible]	16	1.2	.39	1.0	1.3	3.6	11	15	5.6	28	13
10	2.2	16	1.2	.35	1.6	1.2	4.2	17	15	5.6	27	13
11	2.0	15	1.4	.39	2.4	1.1	11	24	8.1	4.8	27	16
12	2.2	15	1.6	.39	3.0	1.2	11	24	11	4.0	26	19
13	2.2	15	1.6	.35	3.8	1.2	7.5	20	6.8	3.0	27	18
14	2.4	15	1.4	.39	4.0	1.2	5.2	19	4.7	2.1	28	18
15	2.4	14	1.4	.40	4.5	1.4	4.4	14	2.9	1.3	28	13
16	2.7	14	1.4	.35	2.4	1.6	4.0	14	1.9	1.1	27	7.4
17	3.0	14	1.4	.35	1.0	1.6	3.2	8.1	1.9	.99	27	6.6
18	3.3	14	1.4	.43	1.5	1.6	3.1	3.6	1.7	1.4	27	5.8
19	3.4	14	1.4	.43	2.0	1.6	2.5	3.1	1.8	6.7	26	12
20	3.9	10	1.5	.43	1.8	1.8	2.4	6.1	5.6	6.1	27	18
21	4.1	5.8	1.3	.43	1.8	1.8	3.6	5.7	4.1	5.8	26	7.0
22	6.0	3.0	1.1	.43	1.6	5.0	3.0	9.3	1.5	5.3	26	.96
23	5.6	2.0	1.2	.43	1.6	6.5	1.9	7.9	1.1	5.0	25	2.8
24	9.7	2.0	1.1	.56	1.6	6.0	1.7	13	5.1	4.8	24	3.7
25	9.2	2.0	1.1	.56	1.5	5.6	8.2	9.4	88	4.6	23	1.6
26	8.8	2.0	1.0	.56	1.5	5.0	35	9.3	9.1	3.9	22	3.3
27	8.5	2.0	.80	.56	1.5	4.8	5.4	12	7.9	2.9	22	4.0
28	8.5	1.8	.74	.56	1.6	4.3	19	11	10	1.7	20	1.3
29	8.2	1.8	.64	.74	---	3.6	30	3.3	7.5	1.2	19	2.9
30	10	1.8	.64	.74	---	3.6	21	1.7	6.1	1.2	19	1.8
31	16	---	.64	.66	---	2.6	---	4.6	---	328	18	---
TOTAL	192.0	328.2	40.76	14.65	48.66	77.1	245.1	412.2	299.5	460.39	848	308.16
MEAN	6.19	10.9	1.31	.47	1.74	2.49	8.17	13.3	9.98	14.9	27.4	10.3
MAX	16	17	1.8	.74	4.5	6.5	35	36	88	328	60	19
MIN	2.0	1.8	.64	.35	.74	1.1	1.7	1.7	1.1	.99	18	.96
AC-FT	381	651	81	29	97	153	486	818	594	913	1680	611

CAL YR 1978 TOTAL 1717.82 MEAN 4.71 MAX 60 MIN .00 AC-FT 3410
WTR YR 1979 TOTAL 3274.72 MEAN 8.97 MAX 328 MIN .35 AC-FT 6500

06823000 NORTH FORK REPUBLICAN RIVER AT COLORADO-NEBRASKA STATE LINE

LOCATION.--Lat 40°04'10", long 102°03'05", in sec.10, T.1 N., R.42 W., Dundy County, Nebraska, Hydrologic Unit 10250002, on right bank 100 ft (30 m) east of Colorado-Nebraska State line and 9.5 mi (15.3 km) upstream from confluence with Arikaree River.

DRAINAGE AREA.--1,360 mi² (3,520 km²), approximately, of which about 100 mi² (260 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--October 1930 to current year. Prior to October 1932, published as North Fork of Arikaree River at Colorado-Nebraska State line. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1240: 1947(M). WSP 1390: 1934. WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Steel piling control since January 1965. Datum of gage is 3,336.09 ft (1,016.840 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 17, 1934, nonrecording gage at present site and datum.

REMARKS.--Records good except those for winter periods, which are poor. Natural flow affected by diversion in Pioneer Canal for irrigation of about 2,700 acres (10.9 km²) in Colorado and Nebraska.

AVERAGE DISCHARGE.--49 years, 47.7 ft³/s (1.351 m³/s), 34,560 acre-ft/yr (42.6 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,110 ft³/s (59.8 m³/s) Apr. 20, 1947, gage height, 5.92 ft (1.804 m), from rating curve extended above 800 ft³/s (22.7 m³/s) on basis of slope-area measurement of peak flow; no flow Aug. 25, 26, 1932.

EXTREMES FOR CURRENT YEAR.--Maximum discharge 75 ft³/s (2.12 m³/s) Mar. 22, gage height, 1.25 ft (0.381 m), no peak above base of 130 ft³/s (3.68 m³/s); maximum gage height, 1.76 ft (0.536 m) Dec. 4, backwater from ice; minimum daily discharge, 2.5 ft³/s (0.071 m³/s) July 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.5	12	51	36	42	57	57	37	23	9.6	9.6	21
2	3.0	14	53	38	38	57	57	38	23	7.5	8.0	18
3	4.5	18	41	40	38	56	56	28	22	6.3	6.0	17
4	4.0	19	44	38	40	55	55	26	17	27	5.4	17
5	4.0	23	53	38	44	56	53	27	16	34	4.0	17
6	6.3	24	52	38	48	57	52	29	16	27	4.5	16
7	8.3	24	50	38	54	57	51	21	15	22	4.5	9.6
8	8.9	20	45	40	60	59	50	16	7.6	11	4.5	9.6
9	8.0	22	42	43	64	58	50	19	19	9.9	6.4	8.8
10	8.5	22	50	46	66	57	51	24	23	8.3	7.7	9.0
11	7.5	22	56	47	67	56	55	21	21	11	10	7.8
12	7.9	26	56	38	65	58	52	21	9.1	8.6	8.7	8.7
13	11	28	54	36	66	58	50	23	6.0	8.1	10	9.3
14	13	26	53	38	67	57	49	23	5.5	7.2	11	9.6
15	12	29	52	40	65	57	49	20	4.5	6.8	13	18
16	18	29	51	40	63	58	48	12	6.3	7.3	11	19
17	16	28	51	40	62	57	48	9.6	4.9	6.7	7.4	20
18	14	28	52	40	58	59	47	9.9	9.2	6.3	7.3	20
19	14	34	52	42	59	60	47	9.3	10	7.0	9.4	13
20	13	30	54	42	60	59	47	9.1	7.9	3.5	11	11
21	14	45	52	42	58	61	47	9.5	8.0	2.5	16	17
22	17	49	51	42	57	68	47	9.2	8.6	7.8	8.0	14
23	25	49	51	40	58	69	48	13	9.5	8.2	7.3	9.6
24	19	49	50	40	56	66	49	19	11	8.7	10	8.8
25	14	50	49	38	54	64	23	12	49	9.3	21	7.8
26	12	53	48	36	54	62	32	6.7	38	9.1	15	7.9
27	13	51	47	34	54	60	44	5.7	21	6.9	17	7.3
28	12	50	47	34	55	58	27	4.5	44	7.7	18	6.5
29	12	51	46	36	---	58	29	4.5	32	6.2	21	6.1
30	13	51	42	38	---	58	30	20	14	6.3	22	7.2
31	11	---	40	42	---	57	---	23	---	9.2	21	---
TOTAL	343.4	976	1535	1220	1572	1829	1400	550.0	501.1	317.0	343.7	371.6
MEAN	11.1	32.5	49.5	39.4	56.1	59.0	46.7	17.7	16.7	10.2	11.1	12.4
MAX	25	53	56	47	67	69	57	38	49	34	22	21
MIN	3.0	12	40	34	38	55	23	4.5	4.5	2.5	4.0	6.1
AC-FT	681	1940	3040	2420	3120	3630	2780	1090	994	629	682	737

CAL YR 1978 TOTAL 11385.0 MEAN 31.2 MAX 68 MIN 3.0 AC-FT 22580
WTR YR 1979 TOTAL 10958.8 MEAN 30.0 MAX 69 MIN 2.5 AC-FT 21740

06823500 BUFFALO CREEK NEAR HAIGLER, NE

LOCATION.--Lat 40°02'45", long 101°52'15", in NE1/4NE1/4 sec.20, T.1 N., R.40 W., Dundy County, Hydrologic Unit 10250002, on right bank 90 ft (27 m) downstream from county highway bridge, 0.8 mi (1.3 km) upstream from mouth, and 4 mi (6 km) northeast of Haigler.

DRAINAGE AREA.--260 mi² (670 km²), approximately, of which about 13 mi² (34 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--October 1940 to current year.

REVISED RECORDS.--WSP 2119: 1948-50(M), 1957(M), drainage area.

GAGE.--Water-stage recorder. Concrete control since June 1954. Datum of gage is 3,204.57 ft (976.753 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for winter period, which are poor. Natural flow affected by diversion about 0.5 mi (0.8 km) upstream for irrigation of 880 acres (3.56 km²).

AVERAGE DISCHARGE.--39 years, 7.64 ft³/s (0.216 m³/s), 5,540 acre-ft/yr (6.83 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 140 ft³/s (3.96 m³/s) June 27, 1948, gage height, 4.37 ft (1.332 m); maximum gage height, 5.93 ft (1.807 m) Jan. 3, 1976, backwater from ice; no flow at times in 1955, 1968, 1973-79.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 17 ft³/s (0.48 m³/s) Mar. 4, gage height, 4.90 ft (1.494 m), no peak above base of 20 ft³/s (0.57 m³/s); maximum recorded gage height, 5.79 ft (1.765 m), Feb. 13, backwater from ice, but may have been higher during period of no gage height record Jan. 27 to Feb. 12; no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.3	6.0	6.7	4.5	9.0	10	8.8	7.3	8.7	.00	.79	6.0
2	6.1	6.3	6.0	4.8	8.0	10	8.9	9.0	3.2	.00	.33	5.9
3	6.1	6.2	6.0	5.0	7.5	10	8.3	9.1	.01	.01	.14	5.8
4	6.1	6.1	7.8	4.4	7.5	11	8.0	8.3	1.8	.02	.07	5.8
5	6.1	6.0	7.6	4.4	7.8	10	7.8	7.9	1.8	.02	.00	4.0
6	6.2	6.0	6.8	4.8	8.0	10	7.7	7.7	1.8	.03	.00	2.2
7	6.4	6.3	5.4	5.0	8.0	9.8	7.8	7.2	1.8	.02	.00	2.2
8	6.5	6.3	5.0	5.4	8.2	9.7	7.7	7.1	2.4	.02	.00	2.3
9	6.5	6.5	5.0	5.2	8.2	9.7	7.6	7.8	4.5	.02	.00	2.2
10	6.4	6.3	5.4	5.2	8.4	9.4	7.9	8.9	4.2	.00	.00	2.0
11	6.3	6.7	5.8	6.0	8.4	9.1	10	8.7	3.8	.00	.22	1.6
12	6.2	6.7	6.0	5.4	8.6	8.8	9.6	8.1	3.8	.00	.16	1.4
13	5.9	6.9	6.0	5.2	8.6	8.5	8.5	7.8	3.8	.00	.07	3.9
14	6.0	7.0	6.0	5.2	9.6	8.4	7.7	7.2	2.4	.00	.49	3.3
15	6.0	7.2	6.2	5.8	9.4	7.5	7.9	6.7	.04	.00	1.2	.15
16	6.0	7.1	6.2	6.0	7.5	7.8	7.8	6.5	.03	.00	1.5	.20
17	6.0	7.2	6.4	6.5	7.8	8.0	7.7	5.9	.00	.16	1.2	.63
18	5.9	7.0	6.6	6.5	9.5	8.5	7.7	5.7	.00	.29	1.3	.53
19	5.9	6.9	6.8	7.0	10	9.4	8.2	5.8	.00	.00	2.1	.51
20	5.9	6.9	6.6	7.0	10	8.7	7.8	5.8	.00	.00	2.2	.54
21	5.8	7.0	6.6	8.0	10	9.1	7.4	5.9	.00	.04	2.3	.44
22	6.8	7.0	6.4	8.5	10	11	7.6	5.8	.02	.02	1.8	.37
23	7.2	7.4	6.4	7.8	9.6	11	7.5	5.8	.10	.03	1.5	.35
24	6.7	7.6	6.4	8.5	9.6	10	7.7	5.8	.44	.10	1.9	.30
25	6.3	7.7	6.2	8.2	9.8	8.7	8.8	6.1	5.0	1.4	1.9	.27
26	5.9	7.7	6.2	7.8	10	8.4	7.7	7.4	5.4	.23	2.5	.23
27	5.8	7.2	6.4	8.0	9.4	8.4	7.7	7.3	4.6	.00	2.1	.18
28	5.7	6.8	6.4	8.5	10	8.3	7.5	7.1	2.3	.04	4.8	.17
29	5.7	6.9	6.0	9.0	---	8.0	7.4	7.2	.05	.01	6.6	.14
30	6.1	6.7	5.2	9.4	---	8.4	7.3	8.9	.00	.06	6.3	.14
31	6.1	---	4.5	9.6	---	8.2	---	9.2	---	.30	6.1	---
TOTAL	190.9	203.6	191.0	202.6	248.4	283.6	240.0	225.0	62.87	3.06	49.57	53.75
MEAN	6.16	6.79	6.16	6.54	8.87	9.15	8.00	7.26	2.10	.099	1.60	1.79
MAX	7.2	7.7	7.8	9.6	10	11	10	9.2	8.7	1.4	6.6	6.0
MIN	5.7	6.0	4.5	4.4	7.5	7.5	7.3	5.7	.00	.00	.00	.14
AC-FT	379	404	379	402	493	563	476	446	125	6.1	98	107

CAL YR 1978 TOTAL 1919.56 MEAN 5.26 MAX 14 MIN .00 AC-FT 3810
WTR YR 1979 TOTAL 1954.55 MEAN 5.35 MAX 11 MIN .00 AC-FT 3880

06824000 ROCK CREEK AT PARKS, NE

LOCATION.--Lat 40°02'30", long 101°43'40", in SW1/4NE1/4 sec.21, T.1 N., R.39 W., Dundy County, Hydrologic Unit 10250002, on right bank at west edge of Parks, 100 ft (30 m) downstream from county road bridge and 0.5 mi (0.8 km) upstream from mouth.

DRAINAGE AREA.--20 mi^2 (52 km^2), approximately, of which about 17 mi^2 (44 km^2) contributes directly to surface runoff.

PERIOD OF RECORD.--October 1940 to current year.

REVISED RECORDS.--WSP 1630: 1951(M). WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,093.35 ft (942.853 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for winter period, which are poor. One diversion about 2 mi (3 km) above station for irrigation of 215 acres (870,000 m^2); flow regulated at times by reservoir at State fish hatchery 7 mi (11 km) upstream.

AVERAGE DISCHARGE.--39 years, 14.1 ft^3/s (0.399 m^3/s), 10,220 acre-ft/yr (12.6 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 493 ft^3/s (14.0 m^3/s) July 5, 1965, gage height, 6.00 ft (1.829 m), from rating curve extended above 40 ft^3/s (1.13 m^3/s) on basis of slope-conveyance study; minimum daily, 2.6 ft^3/s (0.074 m^3/s) Nov. 19, 1975.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 125 ft^3/s (3.54 m^3/s) Aug. 1 at 0415, gage height, 3.56 ft (1.085 m), no other peak above base of 25 ft^3/s (0.71 m^3/s); minimum daily, 7.7 ft^3/s (0.22 m^3/s) Mar. 16, 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	11	11	9.5	11	14	15	10	11	10	58	9.7
2	11	11	10	9.8	10	14	15	11	12	11	17	9.8
3	11	11	11	10	11	14	14	11	11	14	14	9.7
4	11	11	12	9.6	11	14	13	11	11	16	12	9.6
5	11	11	12	9.4	11	14	13	10	11	15	11	9.8
6	12	11	10	9.4	11	14	12	10	11	15	11	9.9
7	12	11	9.6	9.6	12	13	11	10	11	15	10	9.7
8	13	11	9.2	10	12	13	11	10	12	14	10	9.7
9	13	11	9.4	9.5	12	10	11	11	14	14	10	9.6
10	13	11	10	9.5	13	10	12	12	13	14	10	9.5
11	11	11	10	10	14	9.0	17	12	13	13	10	11
12	11	11	10	10	16	8.4	16	12	12	13	10	11
13	11	11	10	9.4	18	8.1	15	11	12	13	9.8	11
14	11	10	11	9.8	17	8.1	14	11	11	13	10	12
15	11	10	11	12	13	7.9	13	12	10	12	11	11
16	12	10	11	12	10	7.7	13	11	10	12	11	11
17	12	9.9	11	12	12	7.7	13	11	10	11	10	11
18	12	9.6	12	11	14	7.9	13	11	10	10	11	10
19	12	9.4	12	11	13	8.8	13	11	10	10	12	10
20	11	10	12	12	14	11	13	11	9.9	10	12	10
21	11	11	12	13	14	13	11	11	9.8	9.6	13	10
22	11	10	12	12	14	18	11	11	9.7	9.5	12	10
23	12	9.8	12	12	14	18	10	12	10	10	11	10
24	11	9.9	11	12	14	17	11	12	11	9.5	11	9.9
25	12	10	12	11	14	16	10	11	13	9.5	11	10
26	12	11	12	11	14	15	10	11	12	9.1	12	10
27	12	11	12	10	14	15	10	11	11	9.3	11	10
28	11	11	12	10	14	14	10	9.9	10	9.3	11	10
29	11	11	11	10	---	14	9.8	10	10	9.1	11	11
30	11	11	10	10	---	14	9.8	11	10	8.8	10	11
31	11	---	9.5	11	---	14	---	11	---	13	10	---
TOTAL	356	317.6	339.7	327.5	367	382.6	369.6	339.9	331.4	361.7	392.8	306.9
MEAN	11.5	10.6	11.0	10.6	13.1	12.3	12.3	11.0	11.0	11.7	12.7	10.2
MAX	13	11	12	13	18	18	17	12	14	16	58	12
MIN	10	9.4	9.2	9.4	10	7.7	9.8	9.9	9.7	8.8	9.8	9.5
AC-FT	706	630	674	650	728	759	733	674	657	717	779	609

CAL YR 1978 TOTAL 4441.3 MEAN 12.2 MAX 41 MIN 7.7 AC-FT 8810
WTR YR 1979 TOTAL 4192.7 MEAN 11.5 MAX 58 MIN 7.7 AC-FT 8320

06824500 REPUBLICAN RIVER AT BENKELMAN, NE

LOCATION.--Lat 40°01'55", long 101°32'30", in SE1/4SW1/4 sec.19, T.1 N., R.37 W., Dundy County, Hydrologic Unit 10250002, on left bank at downstream side of bridge on U.S. Highway 34, 0.6 mi (1.0 km) south of Burlington Northern Inc. track, 1 mi (2 km) southwest of Benkelman, 2 mi (3 km) upstream from South Fork Republican River, and 11 mi (18 km) downstream from Rock Creek.

DRAINAGE AREA.--4,830 mi² (12,500 km²), approximately, of which about 1,230 mi² (3,190 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--October 1894 to September 1895 (published as North Fork Republican River at Benkelman), October 1902 to November 1906, October 1946 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1310: 1895. WSP 1919: 1952, 1956. WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,975.34 ft (906.884 m) National Geodetic Vertical Datum of 1929. Prior to Dec. 17, 1946, nonrecording gages at several sites within 1.5 mi (2.4 km) of present site at various datums; Dec. 17, 1946, to May 26, 1972, water-stage recorder at present site and datum and May 27, 1972 to Aug. 11, 1978 at site 150 ft (46 m) downstream at same datum.

REMARKS.--Records poor. Natural flow affected by irrigation development above station.

AVERAGE DISCHARGE.--30 years, 87.8 ft³/s (2.486 m³/s), 63,610 acre-ft/yr (78.4 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,040 ft³/s (171 m³/s) Sept. 7, 1951, gage height, 7.58 ft (2.310 m); maximum gage height, 7.80 ft (2.377 m) Aug. 9, 1950; no flow at times in most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1826, 13.1 ft (3.99 m) May 31, 1935, from elevations furnished by State Highway Department.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 550 ft³/s (15.6 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Feb. 14	1215	ice jam		a*5.28	1.609	Aug. 1	0530	800	22.7	4.44	1.353
July 3	2400	*1210	34.3	4.71	1.436						

a Observed.

Minimum daily discharge, 2.9 ft³/s (0.082 m³/s) Oct. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.9	31	108	36	52	110	90	96	42	32	312	24
2	3.0	36	75	36	52	110	84	105	44	30	57	20
3	4.3	41	50	40	55	110	78	136	40	233	31	20
4	4.8	32	53	40	55	110	71	156	39	292	27	18
5	4.6	31	60	35	55	128	66	105	42	150	22	18
6	4.0	31	50	35	60	118	55	64	38	100	19	16
7	5.2	31	40	35	70	112	51	55	40	60	15	16
8	4.8	31	30	40	80	122	78	50	42	55	11	14
9	5.0	31	35	40	90	126	78	59	65	45	10	14
10	5.4	39	45	40	100	122	96	70	61	30	10	14
11	4.6	41	50	45	120	119	130	82	48	25	9.0	14
12	4.3	46	60	45	150	108	130	82	40	20	8.0	15
13	3.9	50	60	35	170	102	73	75	32	20	20	16
14	3.7	52	70	35	190	102	57	75	27	18	30	16
15	4.8	52	75	40	150	122	64	85	26	16	30	16
16	5.7	54	70	40	85	116	44	78	21	16	30	15
17	6.4	56	65	45	90	116	48	68	18	16	20	13
18	8.1	54	60	45	110	119	43	51	16	14	28	12
19	8.0	40	60	55	130	119	60	34	16	14	28	11
20	8.1	24	55	55	120	108	81	32	15	14	28	11
21	8.0	26	60	60	120	130	99	30	13	12	26	13
22	14	30	60	60	115	168	108	26	12	12	26	12
23	16	45	60	55	115	160	81	27	12	12	26	10
24	15	55	65	60	110	156	73	32	15	20	26	9.3
25	19	50	60	60	110	130	71	40	117	50	30	10
26	16	45	60	55	110	112	60	38	111	30	32	9.3
27	16	70	60	50	110	99	71	38	61	15	32	7.9
28	16	90	60	50	110	84	75	33	42	10	38	7.2
29	17	100	45	50	---	81	73	30	69	8.5	30	7.4
30	18	108	40	52	---	75	62	40	40	7.0	28	6.5
31	20	---	40	52	---	78	---	34	---	7.0	26	---
TOTAL	277.4	1422	1781	1421	2884	3572	2250	1926	1204	1383.5	1065.0	405.6
MEAN	8.95	47.4	57.5	45.8	103	115	75.0	62.1	40.1	44.6	34.4	13.5
MAX	20	108	108	60	190	168	130	156	117	292	312	24
MIN	2.9	24	30	35	52	75	43	26	12	7.0	8.0	6.5
AC-FT	550	2820	3530	2820	5720	7090	4460	3820	2390	2740	2110	805

CAL YR 1978 TOTAL 16719.37 MEAN 45.8 MAX 272 MIN .00 AC-FT 33160
WTR YR 1979 TOTAL 19591.50 MEAN 53.7 MAX 312 MIN 2.9 AC-FT 38860

06827500 SOUTH FORK REPUBLICAN RIVER NEAR BENKELMAN, NE

LOCATION.--Lat 40°00'34", long 101°32'32", in NE1/4SW1/4 sec.31, T.1 N., R.37 W., Dundy County, Hydrologic Unit 10250003, on right bank 100 ft (30 m) upstream from bridge on State Highway 61, 1 mi (2 km) downstream from Kansas-Nebraska State line, 2.5 mi (4.0 km) southwest of Benkelman, and 4 mi (6 km) upstream from mouth.

DRAINAGE AREA.--2,740 mi² (7,100 km²), approximately, of which about 2,190 mi² (5,670 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--October 1894 to September 1895, October 1902 to November 1906, October 1930 to September 1932, August 1937 to current year. Published as South Fork of Republican River at Benkelman prior to 1906 and as Republican River at Benkelman 1931-32. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1310: 1904-6, 1931. WSP 1390: 1940, 1945, 1947. WSP 1919: 1951-52, 1954-56. WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,990.91 ft (911.629 m) National Geodetic Vertical Datum of 1929. Prior to Dec. 10, 1947, nonrecording gages at several sites within 3.5 mi (5.6 km) of present site at various datums. Dec. 10, 1947, to Sept. 28, 1966, water-stage recorder 130 ft (40 m) downstream at datum 2.00 ft (0.610 m) higher, and Sept. 29, 1966, to Mar. 7, 1968, at present site at datum 2.00 ft (0.610 m) higher.

REMARKS.--Records good except those for winter period, which are poor. Natural flow affected by irrigation development above station, and since July 6, 1950, by storage in Bonny Reservoir.

AVERAGE DISCHARGE.--49 years, 52.3 ft³/s (1.481 m³/s), 37,890 acre-ft/yr (46.7 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge determined, 19,600 ft³/s (555 m³/s) Aug. 16, 1958, gage height, 8.70 ft (2.652 m), site and datum then in use, but may have been higher during flood of June 24, 1945; no flow at times in most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known since at least 1923, 10.1 ft (3.08 m) May 31, 1935, from floodmarks at site 0.2 mile downstream, at datum 2.00 ft (0.610 m) higher, discharge, 150,000 ft³/s (4,250 m³/s), by slope-area measurement.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,330 ft³/s (151 m³/s) July 3, gage height, 7.23 ft (2.204 m); no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	33	27	8.5	5.1	27	683	.00
2	.00	.00	.00	.00	.00	34	30	11	3.7	26	131	.00
3	.00	.00	.00	.00	.00	24	23	13	2.2	855	66	.00
4	.00	.00	.00	.00	.00	27	22	12	.98	1130	39	.00
5	.00	.00	.00	.00	.00	34	21	12	.01	226	23	.00
6	.00	.00	.00	.00	.00	38	19	12	.00	202	17	.00
7	.00	.00	.00	.00	.00	33	19	9.1	.00	77	14	.00
8	.00	.00	.00	.00	.00	34	14	6.6	.01	49	9.3	.00
9	.00	.00	.00	.00	.00	37	16	8.8	4.3	37	8.6	.00
10	.00	.00	.00	.00	.00	37	18	10	9.1	26	7.8	.00
11	.00	.00	.00	.00	.00	36	33	8.8	5.4	19	7.8	.00
12	.00	.00	.00	.00	46	36	31	7.1	2.8	15	6.9	.00
13	.00	.00	.00	.00	118	36	22	7.6	.95	14	6.0	.00
14	.00	.00	.00	.00	67	37	18	7.5	.00	12	5.4	.00
15	.00	.00	.00	.00	37	36	16	7.4	.00	10	6.2	.00
16	.00	.00	.00	.00	.32	38	15	6.4	.00	12	6.3	.00
17	.00	.00	.00	.00	.00	37	14	4.5	.00	46	8.0	.00
18	.00	.00	.00	.00	11	39	13	6.2	.00	16	8.6	.00
19	.00	.00	.00	.00	38	37	13	7.2	.00	18	7.8	.00
20	.00	.00	.00	.00	45	31	10	8.0	.00	16	8.6	.00
21	.00	.00	.00	.00	45	35	9.8	6.0	.00	11	6.4	.00
22	.00	.00	.00	.00	43	46	9.5	4.5	.00	8.6	5.0	.00
23	.00	.00	.00	.00	40	44	8.0	3.2	.00	14	2.6	.00
24	.00	.00	.00	.00	40	37	9.3	2.7	.97	20	3.9	.00
25	.00	.00	.00	.00	34	32	9.5	1.9	375	127	3.3	.00
26	.00	.00	.00	.00	26	31	9.9	1.0	84	56	2.3	.00
27	.00	.00	.00	.00	40	28	9.6	.41	42	25	11	.00
28	.00	.00	.00	.00	31	28	9.3	.10	385	16	4.7	.00
29	.00	.00	.00	.00	---	27	9.2	.16	89	13	1.8	.00
30	.00	.00	.00	.00	---	24	8.9	4.0	42	11	.61	.00
31	.00	---	.00	.00	---	23	---	5.9	---	815	.20	---
TOTAL	.00	.00	.00	.00	661.32	1049	487.0	203.57	1052.52	3949.6	1106.11	.00
MEAN	.000	.000	.000	.000	23.6	33.8	16.2	6.57	35.1	127	35.6	.000
MAX	.00	.00	.00	.00	118	46	33	13	385	1130	683	.00
MIN	.00	.00	.00	.00	.00	23	8.0	.10	.00	8.6	.20	.00
AC-FT	.00	.00	.00	.00	1310	2080	966	404	2090	7830	2190	.00

CAL YR 1978 TOTAL 3960.35 MEAN 10.9 MAX 337 MIN .00 AC-FT 7860
WTR YR 1979 TOTAL 8507.12 MEAN 23.3 MAX 1130 MIN .00 AC-FT 16870

06828500 REPUBLICAN RIVER AT STRATTON, NE

LOCATION.--Lat 40°08'28", long 101°13'42", in SW1/4NW1/4 sec.13, T.2 N., R.35 W., Hitchcock County, Hydrologic Unit 10250004, on right bank at downstream side of county bridge, 0.5 mi (0.8 km) south of Stratton, 0.2 mi (0.3 km) downstream from Muddy Creek, 10 mi (16 km) upstream from Trenton Dam, and 19 mi (31 km) downstream from South Fork Republican River.

DRAINAGE AREA.--8,450 mi² (21,900 km²), approximately, of which about 3,800 mi² (9,840 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--July 1950 to current year.

REVISED RECORDS.--WSP 2119: Drainage area. WDR NE-73: 1960-71(M), 1972.

GAGE.--Water-stage recorder. Datum of gage is 2,775.49 ft (845.969 m) National Geodetic Vertical Datum of 1929. Prior to Aug. 1, 1967, at site 0.3 mi (0.5 km) downstream at present datum.

REMARKS.--Records fair except those for winter period, which are poor. Natural flow affected by irrigation development above station and by storage in Bonny Reservoir (station 06826000).

AVERAGE DISCHARGE.--29 years, 132 ft³/s (3.738 m³/s), 95,630 acre-ft/yr (0.118 km³/yr); median of yearly mean discharges, 116 ft³/s (3.285 m³/s), 84,000 acre-ft/yr (0.104 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 26,800 ft³/s (759 m³/s) July 31, 1962, gage height, 9.34 ft (2.847 m), site then in use; no flow at times in most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum flood since at least 1826 occurred May 31, 1935, discharge, about 200,000 ft³/s (5,660 m³/s), based on slope-area measurement at Max.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,190 ft³/s (175 m³/s) July 4, gage height, 9.78 ft (2.981 m); no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	35	16	20	155	138	72	32	24	1200	15
2	.00	.00	25	18	20	155	138	76	31	12	503	12
3	.00	.00	15	18	22	160	142	78	29	83	234	9.1
4	.00	.00	18	18	22	170	145	100	23	3310	125	5.0
5	.00	.00	18	18	24	200	142	130	20	691	79	2.2
6	.00	.00	16	18	26	220	138	110	14	469	54	.76
7	.00	.00	14	18	26	190	134	90	11	316	36	.30
8	.00	.00	14	20	30	168	124	75	22	196	21	.23
9	.00	.00	16	20	50	168	120	60	49	139	13	.17
10	.00	.00	20	20	75	163	120	50	59	105	8.8	.08
11	.00	.00	22	25	100	150	186	68	50	91	7.2	.17
12	.00	.00	26	25	130	150	220	74	40	64	4.3	.20
13	.00	.00	28	20	160	145	172	70	29	47	.92	.12
14	.00	.00	30	16	200	138	131	64	15	36	8.2	.06
15	.00	.00	34	22	190	134	124	70	9.4	30	20	.00
16	.00	.00	34	25	120	134	110	74	6.9	34	15	.00
17	.00	5.7	34	25	110	134	95	50	3.7	27	7.1	.00
18	.00	34	36	25	120	142	90	36	4.4	70	2.8	.00
19	.00	44	36	30	150	150	95	30	3.8	49	13	.00
20	.00	32	32	30	170	134	110	26	.95	35	15	.00
21	.00	.00	35	35	165	172	120	25	.10	36	17	.00
22	.00	.00	35	35	165	230	140	23	.00	30	12	.00
23	.00	.00	35	30	160	264	150	21	.00	35	9.7	.00
24	.00	1.0	40	30	155	235	100	19	.25	28	7.2	.00
25	.00	20	36	30	150	205	73	16	58	47	8.8	.00
26	.00	24	36	24	150	176	73	23	347	204	22	.00
27	.00	28	36	16	150	168	70	17	84	71	27	.00
28	.00	30	36	16	155	154	70	12	39	35	28	.00
29	.00	32	30	20	---	145	70	11	314	20	27	.00
30	.00	35	20	20	---	138	68	31	59	12	21	.00
31	.00	---	14	20	---	138	---	33	---	15	17	---
TOTAL	.00	285.70	856	707	3015	5185	3608	1634	1354.50	6361	2564.02	45.39
MEAN	.000	9.52	27.6	22.8	108	167	120	52.7	45.2	205	82.7	1.51
MAX	.00	44	40	35	200	264	220	130	347	3310	1200	15
MIN	.00	.00	14	16	20	134	68	11	.00	12	.92	.00
AC-FT	.00	567	1700	1400	5980	10280	7160	3240	2690	12620	5090	90

CAL YR 1978 TOTAL 21186.13 MEAN 58.0 MAX 883 MIN .00 AC-FT 42020
WTR YR 1979 TOTAL 25615.61 MEAN 70.2 MAX 3310 MIN .00 AC-FT 50810

06829000 SWANSON LAKE NEAR TRENTON, NE

LOCATION.--Lat 40°10'10", long 101°03'35", in SE1/4NE1/4 sec.5, T.2 N., R.33 W., Hitchcock County, Hydrologic Unit 10250004, in gate-control house at right end of spillway on downstream side of Trenton Dam on Republican River, 2.5 mi (4.0 km) west of Trenton.

DRAINAGE AREA.--8,620 mi² (22,300 km²), approximately, of which about 3,940 mi² (10,200 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--May 1953 to current year.

REVISED RECORDS.--WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to Nov. 13, 1953, nonrecording gage at same site and datum.

REMARKS.--Reservoir is formed by earthfill dam; storage began May 4, 1953. Capacity, 116,100 acre-ft (0.143 km³) between elevations 2,710.0 ft (826 m), sill of outlet gates, and 2,752.0 ft (839 m), top of storage pool. Top of flood-control pool is at elevation 2,773.0 ft (845 m), capacity, 254,000 acre-ft (0.313 km³). Top of superstorage flood-control pool at elevation 2,785.0 ft (849 m), capacity, 361,600 acre-ft (0.446 km³). Dead storage, 4,100 acre-ft (5.06 hm³). Figures given herein represent total contents. Water used for irrigation in Frenchman-Cambridge irrigation project.

COOPERATION.--Capacity table furnished by Water and Power Resources Service (formerly Bureau of Reclamation).

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 148,900 acre-ft (0.184 km³) Aug. 2, 3, 1962, elevation, 2,757.42 ft (840.462 m); minimum since operation of reservoir began, 19,950 acre-ft (24.6 hm³) Oct. 24, 1954, elevation, 2,722.61 ft (829.852 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 62,100 acre-ft (76.6 hm³) July 9, elevation, 2,738.48 ft (834.689 m); minimum contents, 27,520 acre-ft (33.9 hm³) Nov. 19-24, elevation, 2,726.37 ft (830.998 m).

Capacity table (elevation, in feet, and contents, in acre-feet)

2,725	24,600	2,735	50,280
2,730	36,050	2,740	67,730

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28220	27760	27780	29140	30230	35850	45900	51470	53620	54360	57240	39590
2	28180	27760	27890	29140	30270	36380	46170	51760	53650	54560	57480	39380
3	28160	27780	27910	29140	30320	36690	46450	51860	53650	54760	57340	39140
4	28110	27800	27930	29140	30390	36960	46690	51960	53650	59430	56790	38900
5	28040	27710	27930	29160	30460	37270	46840	52120	53650	60990	56070	38630
6	28020	27710	27960	29180	30480	37770	47080	52180	53650	61450	55020	38340
7	28020	27710	27960	29180	30530	38180	47290	52180	53550	61810	54120	38080
8	28020	27690	27960	29200	30570	38470	47480	52180	53590	61990	53100	37820
9	27980	27650	27960	29230	30640	38760	47630	52410	53750	62060	52120	37560
10	27960	27630	27960	29250	30690	39060	47850	52510	53820	62060	51210	37220
11	27930	27580	27980	29270	30760	39300	48560	52540	53890	62030	50340	36960
12	27870	27580	27980	29320	30990	39490	48900	52670	53920	61780	49280	36790
13	27870	27580	27980	29360	31290	39700	49180	52770	53920	60920	48400	36560
14	27820	27580	28000	29380	31620	39890	49400	52840	53890	60100	47720	36530
15	27800	27580	28020	29410	32000	40130	49590	52970	53820	59460	47110	36510
16	27760	27580	28020	29430	32260	40380	49810	53130	53790	59430	46540	36480
17	27730	27580	28070	29450	32500	40550	50000	53130	53720	58760	45900	36430
18	27710	27560	28180	29570	32670	40850	50150	53160	53720	58310	45510	36380
19	27710	27520	28240	29610	32910	41090	50380	53190	53690	58140	44980	36350
20	27710	27520	28330	29630	33170	41340	50470	53230	53690	57960	44510	36280
21	27650	27520	28380	29680	33360	41880	50600	53260	53590	57550	43790	36280
22	27730	27520	28440	29700	33650	42580	50700	53260	53520	57200	43120	36180
23	27760	27520	28490	29700	33950	43150	50800	53260	53520	57130	42610	36150
24	27800	27520	28580	29720	34240	43560	50920	53260	53620	56990	42160	36100
25	27800	27560	28690	29790	34510	43870	51050	53260	53620	56890	41590	36080
26	27840	27580	28750	29840	34830	44250	51150	53260	54120	56890	41180	36050
27	27840	27580	28870	29880	35180	44540	51150	53230	54190	56790	40870	36000
28	27840	27600	28930	29970	35500	44870	51280	53230	54190	56650	40550	36000
29	27840	27670	28980	30040	---	45160	51370	53360	54320	56580	40300	35980
30	27780	27730	29070	30130	---	45310	51370	53550	54360	56350	40020	35950
31	27760	---	29110	30180	---	45480	---	53590	---	55970	39760	---
MAX	28220	27800	29110	30180	35500	45480	51370	53590	54360	62060	57480	39590
MIN	27650	27520	27780	29140	30230	35850	45900	51470	53520	54360	39760	35950
†	2726.48	2726.47	2727.09	2727.56	2729.78	2733.44	2735.34	2736.02	2736.25	2736.73	2731.42	2729.96
‡	-480	-30	+1380	+1070	+5320	+9980	+5890	+2220	+770	+1610	-16210	-3810

CAL YR 1978 MAX 75920 MIN 27520 -15790
WTR YR 1979 MAX 62060 MIN 27520 +7710

† Elevation, in feet, at end of month.
‡ Change in contents, in acre-feet.

06829500 REPUBLICAN RIVER AT TRENTON, NE

LOCATION.--Lat 40°10'00", long 101°02'40", in SE1/4 sec.4, T.2 N., R.33 W., Hitchcock County, Hydrologic Unit 10250004, on left bank 300 ft (91 m) upstream from Elm Creek, 0.9 mi (1.4 km) downstream from centerline of spillway of Trenton Dam, and 1.5 mi (2.4 km) southwest of Trenton.

DRAINAGE AREA.--8,620 mi^2 (22,300 km^2), approximately, of which about 3,940 mi^2 (10,200 km^2) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1946 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.-- WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,671.06 ft (814.139 m) National Geodetic Vertical Datum of 1929. See WSP 2119 for history of changes prior to Oct. 1, 1959.

REMARKS.--Records poor. Natural flow affected by irrigation development above station, since July 6, 1950, by storage in Bonny Reservoir (station 06826000), since 1953 by storage in Swanson Lake (station 06829000), and since June 1957 by Meeker-Driftwood Canal which diverts directly from Swanson Lake for irrigation of about 16,400 acres (66.4 km^2).

AVERAGE DISCHARGE.--33 years, 88.9 ft^3/s (2.518 m^3/s), 64,410 acre-ft/yr (79.4 hm^3/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,800 ft^3/s (476 m^3/s) June 16, 1948, gage height, 5.64 ft (1.719 m), former site and datum; no flow at times in 1947-50, 1952-54.

EXTREMES OUTSIDE PERIOD OF RECORD.-- Maximum flood known since about 1826 occurred May 31, 1935, discharge, about 200,000 ft^3/s (5,660 m^3/s). Discharge of 21,100 ft^3/s (598 m^3/s) was measured July 3, 1946, gage height, 6.0 ft (1.83 m), former site and datum.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 200 ft^3/s (5.66 m^3/s) July 13, gage height, 4.98 ft (1.518 m); minimum gage height, 5.07 ft (1.545 m) July 16, backwater from Elm Creek; minimum daily discharge, 0.28 ft^3/s (0.008 m^3/s) Aug. 30, Sept. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.47	.44	.46	.36	.35	.62	.55	.75	.96	1.7	.57	.29
2	.47	.45	.43	.36	.35	.65	.55	.75	.82	1.2	.58	.36
3	.48	.50	.45	.40	.35	.66	.60	.75	.72	1.4	.38	.34
4	.47	.52	.48	.40	.35	.71	.60	.75	.70	2.0	3.1	.37
5	.49	.45	.52	.40	.40	.70	.60	.75	.61	1.4	10	.38
6	.41	.48	.52	.40	.40	.69	.60	.75	.60	1.1	97	.37
7	.44	.54	.55	.40	.42	.68	.65	.75	.60	.92	158	.38
8	.46	.57	.60	.45	.46	.62	.65	.75	.54	.78	157	.30
9	.46	.60	.60	.45	.48	.63	.65	.82	.66	.76	156	.32
10	.45	.57	.60	.45	.50	.63	.68	.82	.82	.70	156	.28
11	.44	.60	.55	.50	.54	.65	.68	.75	.79	.67	157	.60
12	.43	.56	.58	.45	.60	.55	.68	.65	.76	76	158	.67
13	.34	.62	.60	.38	.60	.48	.68	.63	.75	145	132	.67
14	.37	.60	.60	.35	.60	.49	.70	.63	.75	170	106	.67
15	.41	.53	.60	.42	.60	.40	.70	.59	.70	171	63	.67
16	.40	.56	.60	.45	.45	.44	.70	.61	.70	144	43	.65
17	.44	.59	.64	.50	.50	.48	.70	.59	.75	95	41	.46
18	.34	.56	.60	.50	.60	.45	.70	.60	.74	67	40	.53
19	.39	.53	.52	.50	.60	.45	.70	.53	.79	34	38	.46
20	.44	.56	.45	.50	.65	.45	.70	.55	.78	1.1	38	.49
21	.44	.60	.45	.58	.60	.45	.70	.60	.88	54	37	.53
22	.52	.53	.48	.55	.55	.45	.72	.62	1.0	99	37	.53
23	.55	.55	.60	.50	.52	.45	.72	.62	.91	40	37	.53
24	.49	.55	.65	.50	.56	.50	.72	.63	1.3	1.6	37	.53
25	.49	.61	.60	.46	.56	.50	.72	.56	2.3	1.0	37	.45
26	.46	.69	.58	.42	.56	.50	.72	.62	1.8	.86	36	.45
27	.37	.62	.56	.42	.55	.50	.72	.60	1.4	.75	17	.45
28	.38	.53	.56	.42	.61	.50	.72	.60	1.6	.75	1.0	.45
29	.42	.51	.48	.38	---	.55	.72	.65	1.7	.75	.39	.39
30	.43	.53	.42	.35	---	.55	.75	1.7	1.6	.75	.28	.31
31	.45	---	.40	.35	---	.55	---	1.3	---	.65	.35	---
TOTAL	13.60	16.55	16.73	13.55	14.31	16.93	20.28	22.27	29.03	1115.84	1794.65	13.88
MEAN	.44	.55	.54	.44	.51	.55	.68	.72	.97	36.0	57.9	.46
MAX	.55	.69	.65	.58	.65	.71	.75	1.7	2.3	171	158	.67
MIN	.34	.44	.40	.35	.35	.40	.55	.53	.54	.65	.28	.28
AC-FT	27	33	33	27	28	34	40	44	58	2210	3560	28

CAL YR 1978 TOTAL 4221.40 MEAN 11.6 MAX 186 MIN .22 AC-FT 8370
WTR YR 1979 TOTAL 3087.62 MEAN 8.46 MAX 171 MIN .28 AC-FT 6120

06829500 REPUBLICAN RIVER AT TRENTON, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1967-1979.

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	TURBIDITY (JTU) (00070)	OXYGEN, DISSOLVED (MG/L) (00300)
OCT 25...	0915	1.0	480	7.8	10.0	3	9.2
NOV 30...	1000	1.0	500	7.5	4.0	4	12.5
JAN 11...	1030	1.0	751	7.7	1.0	3	11.2
JUL 09...	1100	1.0	700	8.1	26.0	5	13.3
AUG 07...	1430	125	540	8.4	27.0	15	7.9
SEP 20...	1345	1.0	670	8.1	22.5	6	12.9

DATE	TIME	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	ALKALINITY (MG/L AS CACO3) (00410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)
JAN 11...	1030	260	8	67	22	58	1.6	5.3	250	120

DATE	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	SOLIDS, DISSOLVED (TONS PER AC-FT) (70303)	SOLIDS, DISSOLVED (TONS PER DAY) (70302)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	PHOSPHURUS, DISSOLVED (MG/L AS P) (00666)	BORON, DISSOLVED (UG/L AS B) (01020)
JAN 11...	16	1.2	39	483	487	.66	1.30	1.7	.01	170

06831500 FRENCHMAN CREEK NEAR IMPERIAL, NE

LOCATION.--Lat 40°25'45", long 101°37'25", in SW1/4NW1/4 sec.3, T.5 N., R.38 W., Chase County, Hydrologic Unit 10250005, on right bank 0.2 mi (0.3 km) downstream from bridge on county highway, 5.8 mi (9.3 km) upstream from Enders Dam, and 6.1 mi (9.8 km) south of Imperial.

DRAINAGE AREA.--880 mi² (2,280 km²), approximately, of which about 720 mi² (1,860 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--October 1940 to current year. Published as Frenchman River near Imperial October 1965 to September 1972.

REVISED RECORDS.--WSP 976: 1942(M). WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Prior to Mar. 7, 1941, nonrecording gage at bridge 0.2 mi (0.3 km) upstream at different datum. Mar. 7, 1941, to Sept. 30, 1958, water-stage recorder at site 0.2 mi (0.3 km) downstream at datum 4.35 ft (1.326 m) lower.

REMARKS.--Records good. Natural flow affected by irrigation development above station.

AVERAGE DISCHARGE.--39 years, 65.7 ft³/s (1.861 m³/s), 47,600 acre-ft/yr (58.7 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,340 ft³/s (66.3 m³/s) Mar. 22, 1960, gage height, 8.43 ft (2.569 m); minimum daily, 4.8 ft³/s (0.14 m³/s) Mar. 12, 1977, backwater from ice.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 7, 1940, reached a stage of 12.4 ft (3.78 m), from floodmarks, site and datum in use Mar. 7, 1941, to Sept. 30, 1958 (discharge not determined but believed greater than that of Mar. 22, 1960).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 57 ft³/s (1.61 m³/s) Feb. 13, gage height, 1.46 ft (0.445 m), no peak above base of 150 ft³/s (4.25 m³/s); maximum gage height, 2.29 ft (0.698 m) Feb. 1, backwater from ice; minimum daily discharge, 20 ft³/s (0.57 m³/s) Aug. 8, 12, 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	27	29	32	31	30	34	31	33	28	26	24
2	25	27	29	31	31	29	34	33	32	31	25	23
3	25	27	29	31	31	30	33	31	31	30	24	23
4	24	27	30	32	28	30	33	31	32	30	22	22
5	25	27	29	31	29	30	32	31	30	31	22	21
6	25	25	29	31	30	33	31	31	30	30	21	21
7	24	26	28	31	30	33	32	30	34	30	21	21
8	24	27	26	30	30	34	31	31	36	29	20	21
9	25	27	30	31	31	32	31	35	39	29	21	21
10	26	29	31	30	34	31	31	37	39	27	21	21
11	25	27	32	30	40	30	36	36	34	27	21	21
12	25	28	31	34	48	30	37	35	31	26	20	21
13	26	29	31	34	54	30	31	34	29	25	20	21
14	26	27	30	35	48	30	31	33	30	25	21	21
15	26	27	30	32	40	30	31	35	29	25	24	21
16	25	27	30	33	36	30	31	35	29	24	24	21
17	25	28	31	31	37	31	30	34	29	24	25	21
18	25	27	31	32	37	33	30	33	30	24	29	21
19	26	27	31	34	36	34	30	33	29	27	27	21
20	26	28	32	35	36	33	30	34	28	25	29	22
21	26	29	32	35	35	35	30	34	28	24	28	22
22	29	29	31	35	36	42	31	35	28	26	26	21
23	29	29	31	33	33	42	31	34	28	26	25	21
24	28	29	31	33	33	37	31	33	29	26	25	21
25	27	29	31	35	31	35	38	33	35	25	26	21
26	26	31	31	34	30	34	33	32	33	23	35	21
27	26	29	31	31	30	34	32	32	36	25	29	21
28	26	29	31	32	30	34	33	32	31	24	26	22
29	26	29	31	31	---	33	32	32	29	24	25	22
30	26	29	32	31	---	34	30	35	28	23	25	22
31	26	---	31	31	---	33	---	35	---	26	24	---
TOTAL	797	836	942	1001	975	1016	960	1030	939	819	757	643
MEAN	25.7	27.9	30.4	32.3	34.8	32.8	32.0	33.2	31.3	26.4	24.4	21.4
MAX	29	31	32	35	54	42	38	37	39	31	35	24
MIN	24	25	26	30	28	29	30	30	28	23	20	21
AC-FT	1580	1660	1870	1990	1930	2020	1900	2040	1860	1620	1500	1280

CAL YR 1978 TOTAL 12059 MEAN 33.0 MAX 81 MIN 19 AC-FT 23920
WTR YR 1979 TOTAL 10715 MEAN 29.4 MAX 54 MIN 20 AC-FT 21250

06832000 ENDERS RESERVOIR NEAR ENDERS, NE

LOCATION.--Lat 40°25'05", long 101°30'55", in NE1/4 sec.9, T.5 N., R.37 W., Chase County, Hydrologic Unit 10250005, near right bank in control house at outlet tube of Enders Dam on Frenchman Creek, 2.2 mi (3.5 km) southeast of Enders.

DRAINAGE AREA.--950 mi² (2,460 km²), approximately, of which about 790 mi² (2,050 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--October 1950 to current year.

REVISED RECORDS.--WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to Sept. 3, 1960, mercury-column pressure gage at same datum.

REMARKS.--Reservoir is formed by earthfill dam; storage began Oct. 23, 1950. Capacity, 36,010 acre-ft (44.4 hm³) between elevations 3,080.0 ft (939 m), sill of outlet gates, and 3,112.3 ft (949 m), top of storage pool. Top of flood-control pool at elevation 3,127.0 ft (953 m), capacity, 74,520 acre-ft (91.9 hm³). Top of superstorage flood-control pool at elevation 3,129.5 ft (954 m), capacity, 80,730 acre-ft (99.5 hm³). Dead storage, 8,470 acre-ft (10.4 hm³). Figures given herein represent total contents. Water used for irrigation in Frenchman-Cambridge irrigation project.

COOPERATION.--Capacity table furnished by Water and Power Resources Service (formerly Bureau of Reclamation).

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 55,330 acre-ft (68.2 hm³) Mar. 25, 1960, elevation, 3,118.20 ft (950.427 m); minimum since operation of reservoir began, 8,870 acre-ft (10.9 hm³) Aug. 28, 1978, elevation, 3,080.67 ft (938.988 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 28,420 acre-ft (35.0 hm³) June 22, elevation, 3,101.49 ft (945.334 m); minimum 11,100 ft³/s (314 m³/s) Oct. 1, elevation, 3,084.07 ft (940.025 m).

Capacity table (elevation, in feet, and contents, in acre-feet)

3,080	8,470	3,100	26,540
3,085	11,770	3,110	40,660
3,090	15,830		

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11190	13380	15580	17850	20020	22300	24600	26250	27620	27610	21320	12190
2	11240	13460	15650	17930	20080	22370	24670	26250	27670	27470	21230	12280
3	11320	13530	15730	17990	20160	22420	24720	26320	27750	27300	21000	12340
4	11380	13630	15830	18060	20220	22510	24790	26350	27770	27120	20630	12400
5	11430	13650	15890	18140	20320	22600	24840	26430	27840	26970	20250	12460
6	11480	13720	15980	18230	20400	22680	24870	26480	27860	26840	19750	12480
7	11550	13800	16050	18290	20490	22780	24960	26500	27860	26700	19160	12560
8	11650	13870	16110	18350	20560	22830	25000	26520	27920	26580	18540	12620
9	11710	13950	16190	18430	20620	22880	25040	26570	28020	26520	17910	12680
10	11790	13990	16250	18490	20720	22930	25110	26620	28080	26350	17310	12730
11	11870	14050	16350	18590	20840	23020	25250	26700	28170	26140	16700	12750
12	11920	14130	16440	18650	20940	23090	25290	26770	28200	25850	16140	12810
13	11970	14190	16520	18680	21080	23110	25370	26820	28270	25510	15690	12860
14	12050	14280	16610	18730	21160	23160	25410	26880	28340	25160	15240	12930
15	12110	14350	16670	18800	21200	23230	25490	26960	28300	24760	14810	13000
16	12170	14430	16730	18890	21260	23310	25580	26990	28310	24310	14430	13070
17	12260	14530	16820	19000	21350	23390	25600	27010	28300	23850	14080	13140
18	12310	14570	16900	19140	21440	23460	25660	27060	28310	23420	13730	13170
19	12390	14630	16980	19240	21530	23530	25710	27090	28380	23030	13300	13210
20	12470	14700	17050	19270	21590	23600	25750	27110	28380	22620	12890	13250
21	12530	14760	17120	19290	21660	23740	25790	27160	28380	22220	12470	13320
22	12640	14850	17200	19330	21720	23900	25830	27200	28360	21800	12140	13360
23	12720	14930	17280	19390	21790	23990	25870	27230	28290	21470	11850	13430
24	12820	15000	17360	19500	21840	24060	25930	27280	28260	21150	11580	13490
25	12870	15110	17430	19550	21920	24130	25970	27320	28270	21030	11550	13550
26	12960	15190	17540	19600	22010	24200	26030	27370	28250	21090	11670	13600
27	13030	15270	17610	19690	22120	24290	26040	27410	28120	21140	11820	13640
28	13110	15340	17660	19750	22230	24360	26110	27460	28060	21190	11900	13720
29	13160	15430	17700	19810	---	24440	26130	27540	27920	21230	11980	13770
30	13220	15500	17750	19870	---	24480	26170	27550	27750	21270	12060	13810
31	13290	---	17800	19950	---	24530	---	27610	---	21300	12150	---
MAX	13290	15500	17800	19950	22230	24530	26170	27610	28380	27610	21320	13810
MIN	11190	13380	15580	17850	20020	22300	24600	26250	27620	21030	11550	12190
≁	3086.99	3089.62	3092.10	3094.24	3096.35	3098.34	3099.70	3100.85	3100.96	3095.50	3085.50	3087.64
≠	+2180	+2210	+2300	+2150	+2280	+2300	+1640	+1440	+140	-6450	-9150	+1660

CAL YR 1978 MAX 32300 MIN 8880 -3030
WTR YR 1979 MAX 28380 MIN 11190 +2700

≁ Elevation, in feet, at end of month.
≠ Change in contents, in acre-feet.

06832500 FRENCHMAN CREEK NEAR ENDERS, NE

LOCATION.--Lat 40°25'05", long 101°30'35", in NW1/4NW1/4 sec.10, T.5 N., R.37 W., Chase County, Hydrologic Unit 10250005, on left bank 0.2 mi (0.3 km) downstream from Enders Dam and 2.5 mi (4.0 km) southeast of Enders.

DRAINAGE AREA.--950 mi² (2,460 km²), approximately, of which about 790 mi² (2,050 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--February 1946 to current year. Published as Frenchman River near Enders October 1965 to September 1972.

REVISED RECORDS.--WSP 2119: 1956, drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,026.22 ft (922.392 m) National Geodetic Vertical Datum of 1929. Prior to June 14, 1948, at site 800 ft (240 m) upstream at datum 6.03 ft (1.838 m) higher. June 14, 1948, to Sept. 14, 1972, at present site at datum 5.00 ft (1.524 m) higher.

REMARKS.--Records good except those below 5.0 ft³/s (0.14 m³/s), which are poor. Flow regulated by Enders Reservoir (station 06832000).

AVERAGE DISCHARGE.--33 years, 64.5 ft³/s (1.827 m³/s), 46,730 acre-ft/yr (57.6 hm³/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 763 ft³/s (21.6 m³/s) Aug. 20, 1953, gage height, 11.31 ft (3.447 m), present datum; maximum gage height, 11.65 ft (3.551 m), present datum, July 18, 1950, backwater from downstream tributary; no flow for many days in 1972-79.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 346 ft³/s (9.80 m³/s) Aug. 7, 8, gage height, 8.33 ft (2.539 m); no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	1.4	1.7	.00	.00	.00	139	25	4.3
2	.00	.00	.00	.00	1.4	.65	.00	.00	.00	143	79	2.8
3	.00	.00	.00	.00	1.4	.00	.00	.01	.00	127	122	1.2
4	.00	.00	.00	.00	1.4	.00	.00	.00	.00	125	155	.96
5	.00	.00	.00	.00	1.6	.00	.00	.00	.00	105	222	.79
6	.00	.00	.00	.00	1.4	.00	.00	.00	.00	88	277	.84
7	.00	.00	.00	.00	1.2	.00	.00	.00	.00	87	323	.84
8	.00	.00	.00	.00	.99	.00	.00	.00	.05	93	345	.84
9	.00	.00	.00	.00	1.0	.00	.00	.00	.70	93	334	.79
10	.00	.00	.00	.00	1.3	.00	.00	.00	.56	109	316	.71
11	.00	.00	.00	.00	1.5	.67	.00	.00	.28	140	319	.84
12	.00	.00	.00	.00	1.4	.00	.00	.00	.14	178	320	.84
13	.00	.00	.00	.00	1.4	.00	.00	.00	.00	199	295	.84
14	.00	.00	.00	.92	1.4	.00	.00	.00	.00	217	260	.84
15	.00	.00	.00	4.5	1.6	.00	.00	.00	.00	238	242	.84
16	.00	.00	.00	1.5	1.5	.00	.00	.00	.28	271	230	.84
17	.00	.00	.00	1.4	1.4	.00	.00	.00	.28	274	231	.70
18	.00	.00	.00	1.4	1.4	.00	.00	.00	.28	260	237	.56
19	.00	.00	.00	1.4	1.4	.00	.00	.00	.28	240	259	.56
20	.00	.00	.00	1.4	1.6	.00	.00	.06	8.3	239	261	.81
21	.00	.00	.00	1.4	1.6	.00	.01	.00	4.9	241	259	.60
22	.00	.00	.00	1.4	1.5	.00	.00	.00	33	244	203	.72
23	.00	.00	.00	1.4	1.5	.00	.00	.00	40	225	164	.84
24	.00	.20	.00	1.3	1.5	.00	.00	.00	50	202	125	.93
25	.00	13	.00	1.1	1.7	.00	.00	.00	53	89	93	.79
26	.00	3.6	.00	1.2	2.5	.00	.00	.00	55	5.8	2.9	.79
27	.00	3.6	.00	1.3	1.8	.00	.00	.00	55	5.6	1.5	.95
28	.00	3.6	.00	1.3	1.7	.00	.00	.00	56	5.6	1.5	.84
29	.00	1.7	.00	1.3	---	.00	.00	.00	72	5.6	.63	.91
30	.00	.00	.00	1.2	---	.00	.00	.00	109	5.6	.00	.84
31	.00	---	.00	1.4	---	.00	---	.00	---	5.8	3.0	---
TOTAL	.00	25.70	.00	26.82	41.49	3.02	.01	.07	539.05	4400.0	5705.53	29.95
MEAN	.000	.86	.000	.87	1.48	.097	.000	.002	18.0	142	184	1.00
MAX	.00	13	.00	4.5	2.5	1.7	.01	.06	109	274	345	4.3
MIN	.00	.00	.00	.00	.99	.00	.00	.00	.00	5.6	.00	.56
AC-FT	.00	51	.00	53	82	6.0	.02	.1	1070	8730	11320	59

CAL YR 1978 TOTAL 13887.75 MEAN 38.0 MAX 328 MIN .00 AC-FT 27550
WTR YR 1979 TOTAL 10771.64 MEAN 29.5 MAX 345 MIN .00 AC-FT 21370

06834000 FRENCHMAN CREEK AT PALISADE, NE

LOCATION.--Lat 40°21'12", long 101°07'35", in SW1/4SE1/4 sec.36, T.5 N., R.34 W., Hayes County, Hydrologic Unit 10250005, on right bank at upstream side of bridge on U.S. Highway 6, 0.7 mi (1.1 km) west of Palisade, and 1.5 mi (2.4 km) upstream from Stinking Water Creek.

DRAINAGE AREA.--1,110 mi² (2,870 km²), approximately, of which about 950 mi² (2,460 km²) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1894 to October 1896, June 1950 to current year. Published as Frenchman River at Palisade, October 1965 to September 1972.

REVISED RECORDS.--WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,743.49 ft (836.216 m) National Geodetic Vertical Datum of 1929. October 1894 to October 1896, nonrecording gage at railroad bridge 0.4 mi downstream at different datum; June 1950 to Feb. 7, 1977, nonrecording gage at site 2,000 ft (600 m) upstream at datum 4.0 ft (1.22 m) higher.

REMARKS.--Records good except those for winter period, which are poor. Natural flow affected by irrigation development above station and, since Oct. 23, 1950, by storage in Enders Reservoir (station 06832000).

AVERAGE DISCHARGE.--31 years, 87.0 ft³/s (2.464 m³/s), 63,030 acre-ft/yr (77.7 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,560 ft³/s (157 m³/s) June 17, 1956, gage height, 8.79 ft (2.679 m), site and datum then in use; minimum daily, 11 ft³/s (0.31 m³/s) Sept. 11, 12, 14, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 610 ft³/s (17.3 m³/s) July 28, gage height, 7.08 ft (2.158 m); minimum daily, 13 ft³/s (0.37 m³/s) Oct. 3, 4, June 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	21	28	15	19	43	31	26	22	87	85	42
2	14	21	25	15	19	40	32	29	21	118	46	40
3	13	21	20	15	19	37	31	28	20	133	65	37
4	13	21	21	15	19	35	31	26	20	121	107	34
5	14	21	21	15	20	33	30	26	18	134	130	31
6	15	21	18	15	21	32	30	26	18	119	181	29
7	17	21	16	15	22	33	30	26	18	105	221	27
8	18	22	15	15	25	32	29	25	20	95	240	26
9	18	22	15	15	25	32	28	27	22	101	280	25
10	18	22	16	15	30	32	29	28	23	101	293	23
11	18	23	17	15	35	31	34	28	22	101	277	23
12	18	24	19	15	45	31	38	28	20	117	277	23
13	17	24	23	15	55	32	36	27	19	139	279	23
14	18	24	25	15	46	31	33	27	17	157	272	24
15	18	24	27	17	40	32	32	26	16	169	263	23
16	17	24	28	20	35	31	32	26	16	186	240	23
17	18	25	28	23	35	32	31	27	14	214	231	22
18	18	25	28	26	37	34	29	27	14	227	273	21
19	17	23	28	28	39	34	29	27	15	224	241	21
20	18	20	27	30	40	33	29	26	15	214	252	20
21	18	20	26	30	45	34	29	26	13	212	254	21
22	20	25	25	26	50	40	28	26	15	233	263	21
23	21	36	25	25	60	42	28	25	16	317	220	20
24	21	35	25	25	70	37	28	25	41	221	192	19
25	21	31	25	22	64	34	31	24	60	201	166	19
26	21	33	25	20	58	33	31	24	67	153	199	19
27	22	32	24	19	48	33	28	24	64	77	94	18
28	21	33	24	19	45	33	27	23	62	304	70	19
29	21	31	20	19	---	32	26	22	63	91	61	19
30	21	29	17	19	---	32	26	22	63	62	53	19
31	21	---	15	19	---	31	---	22	---	51	47	---
TOTAL	560	754	696	597	1066	1051	906	799	834	4784	5872	731
MEAN	18.1	25.1	22.5	19.3	38.1	33.9	30.2	25.8	27.8	154	189	24.4
MAX	22	36	28	30	70	43	38	29	67	317	293	42
MIN	13	20	15	15	19	31	26	22	13	51	46	18
AC-FT	1110	1500	1380	1180	2110	2080	1800	1590	1650	9490	11650	1450

CAL YR 1978 TOTAL 21440 MEAN 58.7 MAX 320 MIN 11 AC-FT 42530
WTR YR 1979 TOTAL 18650 MEAN 51.1 MAX 317 MIN 13 AC-FT 36990

06834000 FRENCHMAN CREEK AT PALISADE, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964-1979.

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	TEMPER-ATURE (DEG C) (00010)
OCT				
16...	1300	17	435	12.0
NOV				
13...	1415	24	437	7.0
DEC				
11...	1630	17	450	.0
JAN				
22...	1240	26	720	.0
MAR				
19...	1300	34	419	7.0
APR				
02...	1440	32	424	10.0
MAY				
14...	1040	27	426	18.0
JUL				
09...	1125	102	389	26.0
AUG				
08...	1140	255	360	--
SEP				
17...	1330	22	421	22.0

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)
APR							
02...	1440	32	10.0	42	3.6	--	--
JUL							
09...	1125	102	26.0	272	75	--	--
23...	1405	233	24.0	1340	843	26	30
AUG							
08...	1140	255	--	1420	978	13	17

DATE	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70344)	SED. SUSP. FALL DIAM. % FINER THAN .500 MM (70345)	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM (70346)
APR						
02...	--	37	--	--	--	--
JUL						
09...	--	80	92	96	98	99
23...	50	75	96	98	99	100
AUG						
08...	26	68	97	99	100	--

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	NUMBER OF SAM-PLING POINTS (00063)	BED MAT. FALL DIAM. % FINER THAN .125 MM (80159)	BED MAT. FALL DIAM. % FINER THAN .250 MM (80160)	BED MAT. FALL DIAM. % FINER THAN .500 MM (80161)	BED MAT. FALL DIAM. % FINER THAN 1.00 MM (80162)	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM (80171)	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM (80172)
APR											
02...	1440	32	13	0	12	65	88	94	98	100	--
AUG											
08...	1140	255	14	0	10	32	83	94	98	99	100

06835000 STINKING WATER CREEK NEAR PALISADE, NE

LOCATION.--Lat 40°22'10", long 101°06'50", at southwest corner of NW1/4 sec.30, T.5 N., R.33 W., Hayes County, Hydrologic Unit 10250006, on right bank 25 ft (8 m) downstream from county bridge, 1.2 mi (1.9 km) upstream from mouth, and 1.8 mi (2.9 km) northwest of Palisade.

DRAINAGE AREA.--1,500 mi² (3,890 km²), approximately, of which about 380 mi² (980 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--October 1949 to current year.

REVISED RECORDS.--WSP 1730: 1952(M). WSP 1919: 1951(P), 1955. WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,740.99 ft (835.454 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for winter period, which are poor. Natural flow affected by irrigation development above station.

AVERAGE DISCHARGE.--30 years, 41.6 ft³/s (1.178 m³/s), 30,140 acre-ft/yr (37.2 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,030 ft³/s (85.8 m³/s) June 17, 1956, gage height, 11.30 ft (3.444 m), from rating curve extended above 1,200 ft³/s (34.0 m³/s) on basis of slope-area measurement of peak flow; minimum daily, 6.0 ft³/s (0.17 m³/s) Aug. 4, 1955.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 152 ft³/s (4.30 m³/s) June 28 at 2030, gage height, 4.96 ft (1.512 m); no other peak above base of 150 ft³/s (4.25 m³/s); minimum daily, 14 ft³/s (0.40 m³/s) Oct. 1-4, Sept. 6, 10, 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	22	27	17	21	40	41	31	30	30	52	17
2	14	22	25	17	21	45	41	31	28	27	28	16
3	14	22	19	17	22	45	42	30	27	26	24	16
4	14	22	20	17	22	47	41	30	25	27	22	15
5	15	22	20	17	23	47	38	29	24	40	21	15
6	15	22	19	17	24	47	36	29	23	30	20	14
7	16	22	17	18	24	46	35	28	22	29	19	15
8	16	23	16	18	25	50	35	28	23	38	18	15
9	17	23	16	18	25	50	34	30	28	34	17	15
10	18	22	19	18	25	45	34	32	32	25	18	14
11	18	23	23	18	30	41	39	35	34	24	18	14
12	17	23	27	18	40	40	55	35	30	22	17	15
13	17	23	30	18	50	40	56	33	27	21	16	16
14	17	23	28	18	52	40	47	31	24	20	16	16
15	17	23	27	20	50	39	41	30	22	19	16	17
16	17	23	28	22	47	39	37	30	21	19	17	17
17	18	23	29	25	43	40	36	30	21	19	18	17
18	18	23	26	28	40	42	35	29	20	19	24	17
19	19	23	26	30	38	46	33	29	20	19	22	16
20	19	18	28	26	42	48	32	29	20	19	20	16
21	20	19	28	26	40	48	31	29	19	19	20	15
22	22	22	26	28	41	60	30	29	19	19	19	16
23	24	24	27	28	45	72	29	28	19	30	18	16
24	23	26	27	28	49	67	29	28	51	44	17	15
25	24	25	27	22	49	58	40	28	66	51	18	15
26	23	27	26	21	42	51	42	27	44	31	24	15
27	22	28	29	21	44	46	36	27	61	24	26	15
28	22	28	29	21	44	44	33	26	120	25	21	15
29	21	27	23	21	---	42	33	26	78	29	18	15
30	22	27	19	21	---	41	31	28	39	51	17	15
31	22	---	17	21	---	41	---	29	---	48	17	---
TOTAL	575	700	748	655	1018	1447	1122	914	1017	878	638	465
MEAN	18.5	23.3	24.1	21.1	36.4	46.7	37.4	29.5	33.9	28.3	20.6	15.5
MAX	24	28	30	30	52	72	56	35	120	51	52	17
MIN	14	18	16	17	21	39	29	26	19	19	16	14
AC-FT	1140	1390	1480	1300	2020	2870	2230	1810	2020	1740	1270	922

CAL YR 1978 TOTAL 10029.4 MEAN 27.5 MAX 138 MIN 9.4 AC-FT 19890
WTR YR 1979 TOTAL 10177.0 MEAN 27.9 MAX 120 MIN 14 AC-FT 20190

06835500 FRENCHMAN CREEK AT CULBERTSON, NE

LOCATION.--Lat 40°14'05", long 100°52'40", in SW1/4SE1/4 sec.12, T.3 N., R.32 W., Hitchcock County, Hydrologic Unit 10250005, on right bank 19 ft (6 m) upstream from bridge on U.S. Highways 6 and 34, 2 mi (3 km) west of Culbertson, and 4.5 mi (7.2 km) upstream from mouth.

DRAINAGE AREA.--2,770 mi^2 (7,170 km^2), approximately, of which about 1,470 mi^2 (3,810 km^2) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1913 to September 1915 (gage heights and discharge measurements only), October 1930 to current year. Published as Frenchman River at Culbertson October 1965 to September 1972. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1390: 1931, 1933, 1934(M), 1938(M). WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,583.44 ft (787.433 m) National Geodetic Vertical Datum of 1929. See WSP 1919 for history of changes prior to Nov. 2, 1950.

REMARKS.--Records good except those for winter period or no gage height record, which are poor. Natural flow affected by irrigation development above station and, since Oct. 23, 1950, by storage in Enders Reservoir (station 06832000). Prinicipal diversion is by Culbertson Canal, 20,800 acres (84.2 km^2).

AVERAGE DISCHARGE.--49 years, 106 ft^3/s (3.002 m^3/s), 76,800 acre-ft/yr (94.7 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,000 ft^3/s (425 m^3/s), estimated, May 31, 1935, gage height, 14.8 ft (4.51 m), from floodmarks, present site and datum; minimum daily, 0.60 ft^3/s (0.017 m^3/s) Aug. 30, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 382 ft^3/s (10.8 m^3/s) July 29, gage height, 4.57 ft (1.393 m); maximum gage height, 5.27 ft (1.606 m) Feb. 12, backwater from ice; minimum daily discharge, 11 ft^3/s (0.31 m^3/s) July 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	41	69	35	44	110	94	26	22	20	47	16
2	24	41	64	37	44	100	94	30	22	13	43	15
3	24	41	42	38	46	98	92	26	21	14	21	15
4	24	41	45	39	48	100	88	26	21	16	18	14
5	25	41	46	40	48	100	88	26	20	25	16	16
6	25	41	46	41	50	98	86	27	20	14	15	79
7	27	42	43	42	53	95	82	26	20	16	16	38
8	29	46	40	42	58	100	81	26	21	20	16	32
9	30	48	40	42	66	98	79	26	23	24	18	32
10	30	50	42	43	80	97	57	27	24	23	15	31
11	30	51	45	44	90	92	67	26	20	18	18	30
12	31	52	55	45	105	95	88	27	20	17	15	30
13	31	52	60	45	120	93	75	27	20	16	15	30
14	33	52	63	46	130	91	64	27	19	14	13	31
15	33	54	65	46	120	92	56	27	18	14	14	32
16	33	54	67	48	105	93	50	27	18	15	12	33
17	33	54	69	54	94	93	44	26	18	17	12	39
18	33	54	70	60	85	95	37	25	17	21	16	39
19	34	54	70	65	83	96	35	25	17	17	48	40
20	35	48	66	70	82	97	32	25	18	14	35	39
21	37	42	66	70	82	103	29	25	17	11	26	38
22	40	48	66	58	95	118	28	24	17	15	22	37
23	42	55	65	45	120	131	27	24	18	53	19	37
24	42	65	57	43	140	131	27	25	20	68	15	37
25	42	64	61	42	150	121	27	24	32	63	16	37
26	42	64	64	42	155	114	32	23	23	44	37	38
27	42	67	57	42	140	106	32	23	40	21	61	38
28	41	69	60	42	120	101	27	23	80	26	37	37
29	41	69	49	42	---	101	26	22	140	193	32	37
30	41	69	35	42	---	98	26	25	60	47	26	38
31	41	---	35	44	---	96	---	22	---	45	19	---
TOTAL	1039	1569	1722	1434	2553	3153	1670	788	846	934	733	1005
MEAN	33.5	52.3	55.5	46.3	91.2	102	55.7	25.4	28.2	30.1	23.6	33.5
MAX	42	69	70	70	155	131	94	30	140	193	61	79
MIN	24	41	35	35	44	91	26	22	17	11	12	14
AC-FT	2060	3110	3420	2840	5060	6250	3310	1560	1680	1850	1450	1990

CAL YR 1978 TOTAL 16602.16 MEAN 45.5 MAX 493 MIN .60 AC-FT 32930
WTR YR 1979 TOTAL 17446.00 MEAN 47.8 MAX 193 MIN 11 AC-FT 34600

06835500 FRENCHMAN CREEK AT CULBERTSON, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water year 1970 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (JTU) (00070)	OXYGEN, DIS-SOLVED (MG/L) (00300)
OCT							
25...	1015	50	350	8.0	9.0	35	10.0
NOV							
30...	1145	69	360	7.7	4.0	45	12.5
JAN							
11...	0920	44	533	7.5	.0	15	12.5
JUL							
09...	0930	22	670	8.1	20.0	40	7.9
AUG							
07...	1350	10	610	8.1	29.0	25	8.1
SEP							
20...	1430	35	500	8.1	19.0	65	8.9

DATE	TIME	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)
JAN										
11...	0920	220	1	62	16	24	.7	5.0	220	38

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P) (00666)	BORON, DIS-SOLVED (UG/L AS B) (01020)
JAN										
11...	6.4	.9	58	356	356	.48	42.3	3.0	.01	100

06836000 BLACKWOOD CREEK NEAR CULBERTSON, NE

LOCATION.--Lat 40°14'10", long 100°48'39", in SE1/4SW1/4 sec.10, T.3 N., R.31 W., Hitchcock County, Hydrologic Unit 10250004, on right bank 500 ft (152 m) upstream from bridge on U.S. Highways 6 and 34, 0.2 mi (0.3 km) north of Burlington Northern Inc. bridge, 1 mi (2 km) east of Culbertson, and 1.8 mi (2.9 km) upstream from mouth.

DRAINAGE AREA.--320 mi² (830 km²), approximately, of which about 270 mi² (700 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--May 1946 to current year.

REVISED RECORDS.-- WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,555.25 ft (778.840 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1967, at site 0.2 mi (0.3 km) downstream at present datum and Oct. 1, 1967, to Aug. 28, 1968, at site 0.8 mi (1.3 km) downstream at datum 8.96 ft (2.731 m) lower.

REMARKS.--Records poor prior to Mar. 16, good thereafter. Natural flow affected by irrigation development above station, return flow from irrigated areas, and waste from Culbertson Canal.

AVERAGE DISCHARGE.--33 years, 6.48 ft³/s (0.184 m³/s), 4,690 acre-ft/yr (5.78 hm³/yr); median of yearly mean discharges, 5.7 ft³/s (0.161 m³/s), 4,100 acre-ft/yr (5.06 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,650 ft³/s (46.7 m³/s) June 17, 1955, gage height, 14.64 ft (4.462 m), site then in use; no flow Jan. 4-6, 1950.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 31, 1935, reached a stage of 24.0 ft (7.32 m), at site 0.2 mi (0.3 km) downstream, at present datum, from floodmarks, discharge, about 5,300 ft³/s (150 m³/s), from information by Nebraska Department of Roads.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 128 ft³/s (3.62 m³/s) Apr. 26, gage height, 3.89 ft (1.186 m), no peak above base of 150 ft³/s (4.25 m³/s); minimum daily, 0.70 ft³/s (0.020 m³/s) Jan. 29, 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	.85	.85	.76	.75	1.5	1.1	3.6	1.1	1.9	11	21
2	1.2	.94	.79	.94	.80	1.6	1.0	4.3	1.2	10	3.8	21
3	1.6	.94	.73	.94	.80	1.5	.87	6.5	1.1	5.7	2.3	16
4	1.5	1.0	.73	.92	.85	1.3	.91	5.7	.98	9.4	2.4	16
5	1.5	1.0	.73	.92	.85	1.4	.85	4.7	1.1	8.0	6.3	15
6	1.5	1.0	.73	.92	.85	1.4	.92	5.0	.98	6.7	3.5	22
7	1.4	1.0	.73	.92	.94	1.3	.82	8.2	1.0	6.6	6.7	17
8	1.4	1.0	.73	.94	1.0	1.2	.83	7.8	1.5	5.7	5.0	16
9	1.4	1.0	.73	.94	1.0	1.4	.80	9.1	2.0	5.6	5.3	11
10	1.3	1.1	.79	.94	1.7	1.3	.87	16	2.4	7.2	5.3	1.8
11	1.2	1.0	.94	.94	3.4	1.4	1.2	16	4.5	3.8	6.0	1.1
12	.94	1.0	.94	.90	33	1.4	.95	21	2.6	2.4	5.5	1.1
13	.94	1.0	.94	.80	28	1.5	.74	8.9	1.2	2.5	5.0	1.1
14	1.1	1.0	.94	.90	22	1.5	.88	11	1.1	3.1	4.5	1.1
15	1.2	1.0	1.0	1.1	3.0	1.6	.80	7.0	1.0	3.8	4.5	1.0
16	1.1	1.0	1.1	1.0	1.1	1.5	.85	1.5	1.5	4.9	5.0	1.0
17	1.2	1.0	1.1	1.0	1.5	1.3	.85	1.3	.87	4.4	5.0	.98
18	1.3	1.0	1.1	.94	2.0	1.2	2.7	2.3	.99	8.4	5.3	.97
19	1.4	1.0	1.1	1.0	3.5	1.1	2.3	2.1	1.1	6.2	5.3	.99
20	1.3	.94	1.0	1.0	3.5	1.0	2.3	1.8	1.0	2.6	4.5	.91
21	1.4	1.0	1.0	1.0	3.2	1.5	4.9	3.1	.90	3.6	4.8	.96
22	2.1	1.0	.94	1.0	8.2	2.0	3.5	1.2	.86	10	6.0	1.0
23	2.0	1.0	.94	1.1	8.0	1.4	4.1	1.4	.86	18	4.9	.96
24	1.8	1.0	.96	1.1	6.2	1.0	2.6	1.3	.86	16	4.1	.84
25	1.7	1.3	1.0	1.1	4.2	.97	2.6	1.2	.96	47	6.6	.84
26	1.6	1.4	1.0	.90	3.0	.94	43	1.2	6.6	10	55	.82
27	1.2	1.0	1.0	.75	2.4	1.1	8.2	1.1	8.0	8.0	35	.80
28	1.2	1.0	1.1	.75	1.8	1.1	4.2	1.2	4.8	4.9	22	.80
29	1.0	1.0	.90	.70	---	1.0	3.8	1.4	5.8	3.5	20	.81
30	1.0	.85	.80	.70	---	.95	3.9	4.3	1.8	7.1	17	.74
31	.85	---	.76	.75	---	.98	---	1.6	---	7.7	17	---
TOTAL	41.53	30.32	28.10	28.57	147.54	40.34	103.34	162.8	60.66	244.7	294.6	175.62
MEAN	1.34	1.01	.91	.92	5.27	1.30	3.44	5.25	2.02	7.89	9.50	5.85
MAX	2.1	1.4	1.1	1.1	33	2.0	43	21	8.0	47	55	22
MIN	.85	.85	.73	.70	.75	.94	.74	1.1	.86	1.9	2.3	.74
AC-FT	82	60	56	57	293	80	205	323	120	485	584	348

CAL YR 1978 TOTAL 1787.30 MEAN 4.90 MAX 248 MIN .73 AC-FT 3550
WTR YR 1979 TOTAL 1358.12 MEAN 3.72 MAX 55 MIN .70 AC-FT 2690

06836500 DRIFTWOOD CREEK NEAR MCCOOK, NE

LOCATION.--Lat 40°08'50", long 100°39'55", in SE1/4SW1/4 sec.12, T.2 N., R.30 W., Red Willow County, Hydrologic Unit 10250004, on right bank 50 ft (15 m) downstream from privately owned bridge, 600 ft (183 m) downstream from siphon and wasteway on Meeker-Driftwood Canal, 4.5 mi (7.2 km) southwest of McCook, and 4.5 mi (7.2 km) upstream from mouth.

DRAINAGE AREA.--360 mi² (930 km²), approximately, of which about 350 mi² (910 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--March 1946 to current year.

REVISED RECORDS.--WSP 1210: 1950.

GAGE.--Water-stage recorder. Datum of gage is 2,493.78 ft (760.104 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 12, 1962, at site 0.2 mi (0.3 km) downstream in old channel at present datum, and Oct. 12, 1962, to Apr. 11, 1963, at site 0.5 mi (0.8 km) downstream at datum 3.75 ft (1.143 m) lower.

REMARKS.--Records fair. Natural flow affected by waste from Meeker-Driftwood Canal and by irrigation development above station.

AVERAGE DISCHARGE.--33 years, 10.6 ft³/s (0.300 m³/s), 7,680 acre-ft/yr (9.47 hm³/yr); median of yearly mean discharges, 8.2 ft³/s (0.232 m³/s), 5,900 acre-ft/yr (7.27 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,740 ft³/s (134 m³/s) Aug. 7, 1950, gage height, 25.43 ft (7.751 m), at site then in use, from floodmark, from rating curve extended above 3,000 ft³/s (85.0 m³/s); no flow at times in 1946-50, 1952-56.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 283 ft³/s (8.01 m³/s) July 18, gage height, 12.83 ft (3.911 m), no peak above base of 300 ft³/s (8.50 m³/s); minimum daily, 2.4 ft³/s (0.068 m³/s) Feb. 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.1	4.3	4.9	4.6	4.1	4.6	5.5	4.5	3.4	4.7	8.3	8.0
2	3.8	4.4	4.8	4.5	4.1	4.8	5.5	5.1	3.1	20	9.2	6.1
3	4.3	5.6	4.7	4.4	4.1	5.2	5.5	5.5	3.3	20	8.2	6.4
4	4.1	4.5	4.9	4.4	4.4	4.8	5.5	4.4	3.1	105	8.6	6.8
5	4.1	4.4	4.9	4.4	4.1	4.9	5.2	4.4	3.1	31	9.2	6.5
6	4.0	4.4	4.9	4.2	4.4	4.9	4.9	4.6	3.4	18	11	5.1
7	6.7	4.4	4.4	4.2	4.0	5.1	5.0	4.8	2.8	16	11	5.5
8	5.8	4.4	4.3	4.2	3.9	5.2	5.2	4.9	2.8	15	9.7	7.1
9	5.5	4.6	4.4	4.2	4.0	5.1	5.2	4.9	5.4	8.4	9.5	6.8
10	6.0	4.9	4.4	4.2	7.0	4.9	5.4	4.9	6.0	6.2	9.6	6.0
11	5.8	4.6	4.5	4.6	23	4.6	6.4	4.9	4.7	5.1	8.8	5.7
12	5.5	4.4	4.6	4.4	33	4.6	7.8	4.7	4.5	6.7	9.6	8.2
13	4.8	4.6	4.9	4.2	31	4.9	6.4	4.6	4.5	7.3	7.7	5.7
14	4.4	4.4	4.9	4.0	31	4.8	6.0	3.7	4.4	8.5	8.4	5.0
15	4.3	4.4	5.2	4.4	27	4.4	5.8	4.1	4.2	9.1	8.1	4.8
16	4.5	4.6	5.2	4.6	11	4.9	6.1	4.4	4.1	23	7.9	4.5
17	5.0	4.8	4.9	4.8	10	5.2	5.5	4.5	4.1	27	7.2	4.3
18	5.8	4.9	5.2	5.0	6.5	5.7	5.8	5.4	4.1	109	6.9	4.3
19	6.1	4.6	5.2	5.2	5.9	6.1	5.4	5.9	4.1	53	6.5	4.3
20	5.8	4.4	5.2	5.6	5.6	5.7	5.1	5.8	4.1	18	5.9	4.5
21	6.0	4.6	5.3	5.8	5.0	6.3	4.7	5.5	3.9	4.8	6.8	4.1
22	7.2	4.6	5.2	5.7	4.9	9.4	4.6	5.0	3.6	21	8.2	3.7
23	8.8	4.8	5.5	4.4	5.1	9.4	5.1	3.8	3.6	43	9.1	3.6
24	7.6	4.9	5.1	4.7	4.6	6.7	5.0	3.5	3.4	18	8.9	4.0
25	7.5	5.3	5.2	4.4	3.6	6.4	5.2	3.8	27	12	9.0	3.6
26	7.0	6.3	5.5	4.0	2.4	5.6	5.2	4.1	23	8.0	15	3.8
27	6.4	5.8	5.3	4.1	4.4	5.5	5.1	3.8	6.3	6.5	11	3.5
28	6.1	5.2	5.5	4.1	4.6	6.0	4.2	3.7	17	6.2	10	3.1
29	5.8	5.2	5.1	3.8	---	5.9	4.6	4.1	12	6.1	12	4.1
30	4.5	5.2	4.9	3.8	---	5.8	4.5	11	7.8	6.1	10	4.3
31	4.5	---	4.9	3.8	---	5.7	---	4.9	---	7.4	8.8	---
TOTAL	171.8	143.5	153.9	138.7	262.7	173.1	161.4	149.2	186.8	650.1	280.1	153.6
MEAN	5.54	4.78	4.96	4.47	9.38	5.58	5.38	4.81	6.23	21.0	9.04	5.11
MAX	8.8	6.3	5.5	5.8	33	9.4	7.8	11	27	109	15	8.2
MIN	3.8	4.3	4.3	3.8	2.4	4.4	4.2	3.5	2.8	4.7	5.9	3.1
AC-FT	341	285	305	275	521	343	320	296	371	1290	556	304

CAL YR 1978 TOTAL 2408.52 MEAN 6.60 MAX 101 MIN .35 AC-FT 4780
WTR YR 1979 TOTAL 2624.70 MEAN 7.19 MAX 109 MIN 2.4 AC-FT 5210

06837000 REPUBLICAN RIVER AT MCCOOK, NE

LOCATION.--Lat 40°11'15", long 100°37'05", in SW1/4NE1/4 sec.32, T.3 N., R.29 W., Red Willow County, Hydrologic Unit 10250004, on left bank 25 ft (8 m) downstream from bridge on U.S. Highway 83 at south edge of McCook, 2.5 mi (4.0 km) downstream from Driftwood Creek, and 10.5 mi (16.9 km) upstream from Red Willow Creek.

DRAINAGE AREA.--12,310 mi² (31,900 km²), approximately, of which about 6,260 mi² (16,200 km²) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1930 to June 1932, October 1954 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,456.37 ft (748.702 m) National Geodetic Vertical Datum of 1929. October 1930 to June 1932 nonrecording gage on former highway bridge 325 ft (99.1 m) upstream at different datum and October 1954 to Mar. 13, 1959, on highway bridge 25 ft (7.6 m) upstream at present datum.

REMARKS.--Records good except those for winter period, which are poor. Natural flow affected by irrigation development above station and by storage in Bonny Reservoir, Enders Reservoir (station 06832000), and Swanson Lake (station 06829000).

AVERAGE DISCHARGE.--26 years, 191 ft³/s (5.409 m³/s), 138,400 acre-ft/yr (0.171 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,890 ft³/s (167 m³/s) Mar. 21, 1960, gage height, 9.14 ft (2.786 m); no flow for several days in July and August 1931.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum flood since at least 1826 occurred May 31, 1935, discharge, about 245,000 ft³/s (6,940 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 625 ft³/s (17.7 m³/s) Aug. 26, gage height, 4.83 ft (1.472 m); maximum gage height, 6.06 ft³/s (0.17 m³/s) Feb. 13, backwater from ice; minimum daily discharge, 21 ft³/s (0.59 m³/s) Oct. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	58	95	54	56	170	161	71	57	61	129	82
2	22	60	66	56	52	170	159	85	51	133	115	79
3	24	61	64	56	54	150	133	75	48	122	73	74
4	25	61	72	56	54	150	129	74	42	204	67	69
5	27	63	80	56	56	160	126	71	40	232	66	67
6	30	63	75	58	60	180	117	69	37	162	107	78
7	33	63	65	58	65	180	118	67	39	112	140	95
8	37	62	60	60	70	158	119	66	48	100	187	76
9	37	67	60	60	90	147	120	69	63	80	193	72
10	39	70	65	60	120	143	122	69	62	76	202	68
11	40	71	65	66	150	144	142	77	54	70	210	65
12	43	73	65	64	170	147	158	73	45	64	214	67
13	44	72	68	60	190	146	147	72	39	65	205	67
14	44	73	68	58	200	143	127	69	33	110	211	66
15	44	75	68	68	180	142	111	71	31	197	185	66
16	43	75	68	70	120	136	105	63	32	200	151	66
17	44	74	70	68	90	124	99	57	35	260	105	63
18	45	73	70	60	100	125	95	73	37	266	108	62
19	47	63	70	60	110	129	87	66	39	310	128	62
20	46	56	66	62	110	129	87	60	35	150	144	58
21	48	58	68	62	110	157	83	54	31	85	134	50
22	55	60	70	62	115	216	79	54	30	122	115	49
23	62	75	70	60	120	229	78	53	28	314	112	48
24	61	95	76	64	130	204	82	53	27	246	109	46
25	60	110	74	60	135	189	82	51	31	290	110	46
26	63	103	72	58	140	175	101	50	116	204	298	48
27	62	97	72	54	150	164	103	48	77	141	210	47
28	60	94	75	54	150	159	82	46	70	104	150	47
29	62	93	70	56	---	158	75	48	83	165	125	46
30	60	94	60	56	---	155	71	99	81	147	102	45
31	59	---	54	56	---	158	---	76	---	104	87	---
TOTAL	1387	2212	2141	1852	3147	4937	3298	2029	1441	4896	4492	1874
MEAN	44.7	73.7	69.1	59.7	112	159	110	65.5	48.0	158	145	62.5
MAX	63	110	95	70	200	229	161	99	116	314	298	95
MIN	21	56	54	54	52	124	71	46	27	61	66	45
AC-FT	2750	4390	4250	3670	6240	9790	6540	4020	2860	9710	8910	3720

CAL YR 1978 TOTAL 30908.4 MEAN 84.7 MAX 761 MIN 8.0 AC-FT 61310
WTR YR 1979 TOTAL 33706.0 MEAN 92.3 MAX 314 MIN 21 AC-FT 66860

06837000 REPUBLICAN RIVER AT MC COOK, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water year 1967 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: December 1966 to current year.

INSTRUMENTATION.--Temperature recorder since Dec. 13, 1966.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 38.5°C June 24, 1971; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 36.5°C July 11; minimum, 0.0°C on many days during winter period.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	23.0	11.5	14.5	6.0	3.5	1.0	.0	.0	.0	.0	2.0	1.0
2	21.5	14.5	15.5	8.0	2.0	1.0	.0	.0	.0	.0	3.0	2.0
3	21.0	9.0	15.5	8.0	1.5	.5	.0	.0	.0	.0	4.0	3.0
4	19.0	8.0	15.5	7.0	2.0	.5	.0	.0	.0	.0	4.5	3.5
5	19.0	7.0	13.0	8.5	1.5	.5	.0	.0	.0	.0	4.0	1.0
6	19.5	5.0	11.5	5.5	1.5	.5	.0	.0	.0	.0	5.0	.5
7	19.5	7.0	11.5	4.5	1.5	.5	.0	.0	.0	.0	8.0	4.0
8	23.0	9.0	12.0	5.5	1.0	.5	.0	.0	.0	.0	7.0	5.5
9	22.0	13.0	13.5	6.0	1.0	.0	.0	.0	.5	.0	8.0	5.5
10	21.5	9.0	9.5	4.5	1.5	.5	.0	.0	.5	.0	8.0	4.5
11	21.5	10.0	4.0	2.0	1.5	.5	.0	.0	1.0	.0	10.0	5.0
12	19.0	10.0	3.5	1.5	1.0	.5	.0	.0	1.0	.0	12.0	4.5
13	18.0	9.0	3.5	1.5	1.0	.5	.0	.0	1.0	.0	11.5	5.0
14	16.0	5.5	4.5	1.5	1.5	.5	.0	.0	.5	.0	10.5	4.0
15	18.5	6.5	4.5	1.5	1.5	.5	.0	.0	.5	.0	11.5	4.0
16	16.0	6.5	5.5	3.5	1.0	.5	.0	.0	.5	.0	8.0	3.5
17	16.5	7.0	7.0	1.5	1.0	.5	.0	.0	.0	.0	9.5	4.5
18	15.5	9.0	6.5	1.5	.5	.0	.0	.0	.0	.0	9.5	5.5
19	18.0	6.5	2.0	1.5	.5	.0	.5	.0	.0	.0	9.0	7.0
20	18.5	8.0	2.0	1.0	1.0	.0	.0	.0	.0	.0	9.5	6.0
21	17.0	11.0	1.0	.5	.5	.0	.5	.0	.0	.0	9.0	6.5
22	11.5	8.0	1.0	.5	.5	.0	.5	.0	.0	.0	7.0	4.0
23	14.0	6.0	1.5	.5	.5	.0	.0	.0	.5	.0	8.0	3.5
24	16.5	7.0	1.0	.5	1.0	.0	.5	.0	.0	.0	10.0	4.0
25	13.5	8.5	2.0	1.0	.5	.0	.0	.0	.0	.0	13.0	4.5
26	14.0	5.0	1.0	.5	.5	.0	.0	.0	1.0	.0	9.0	5.0
27	14.5	6.0	1.0	.5	.5	.0	.0	.0	1.0	.5	5.5	4.0
28	15.0	6.0	6.5	1.5	.5	.0	.0	.0	1.5	.5	13.0	4.0
29	15.5	7.0	6.5	1.0	.0	.0	.0	.0	---	---	13.5	8.0
30	12.0	9.0	6.5	1.0	.0	.0	.0	.0	---	---	13.5	8.5
31	15.0	9.0	---	---	.0	.0	.0	.0	---	---	9.5	6.0
MONTH	23.0	5.0	15.5	.5	3.5	.0	.5	.0	1.5	.0	13.5	.5
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	6.5	5.0	14.0	11.0	25.5	10.5	30.5	19.0	25.0	20.5	27.0	22.0
2	7.0	4.5	14.0	11.5	28.0	12.0	29.0	19.0	25.0	21.0	26.0	20.5
3	6.0	4.5	11.5	9.0	29.5	13.5	34.0	22.0	25.0	20.5	26.0	20.5
4	10.5	4.0	18.0	7.0	30.0	15.0	24.5	20.5	25.0	20.5	---	---
5	11.5	6.5	20.5	10.5	30.5	14.5	22.0	18.5	25.5	21.0	---	---
6	11.0	5.5	23.0	14.0	31.5	15.5	19.0	17.0	26.0	22.0	---	---
7	14.5	6.5	22.0	14.0	25.5	15.0	29.0	16.5	31.0	23.0	---	---
8	15.0	10.0	18.5	12.0	15.0	11.0	31.0	20.0	31.5	24.0	---	---
9	14.5	9.0	12.0	10.0	13.5	10.0	34.0	21.0	28.5	24.5	---	---
10	12.0	9.0	11.0	7.0	25.5	7.0	35.5	25.5	26.0	23.0	---	---
11	11.5	8.5	16.0	6.0	28.0	13.0	36.5	25.5	25.5	19.5	---	---
12	11.0	7.0	18.5	10.5	31.0	14.5	35.0	23.5	25.5	21.0	---	---
13	13.0	7.0	20.0	11.0	33.0	16.0	35.0	24.5	25.0	21.0	---	---
14	15.5	10.0	28.5	13.5	33.0	16.5	33.5	25.0	24.0	19.0	---	---
15	18.0	11.5	28.0	15.5	30.5	18.0	33.0	26.5	18.5	17.0	---	---
16	24.5	14.0	29.5	15.0	30.5	18.5	28.0	24.5	23.0	17.0	---	---
17	22.5	12.0	27.0	13.5	24.0	15.0	26.0	23.5	26.0	20.0	---	---
18	21.5	16.0	25.0	16.0	22.0	14.5	25.5	21.5	25.5	21.5	---	---
19	26.0	17.0	21.0	15.0	24.0	16.0	28.0	23.0	26.0	21.0	---	---
20	19.5	12.0	23.0	14.5	28.5	11.5	28.5	23.5	26.0	20.5	---	---
21	19.5	12.0	25.5	12.0	31.5	14.5	27.0	22.0	26.0	21.0	---	---
22	22.0	12.0	24.5	11.5	26.5	16.5	26.5	22.0	26.0	21.0	---	---
23	22.0	13.5	23.0	11.0	26.5	16.5	26.5	24.0	26.0	20.5	---	---
24	22.0	14.5	24.5	8.0	25.5	16.0	26.5	24.5	25.5	21.0	---	---
25	18.5	13.5	24.0	9.5	32.0	14.0	26.5	22.0	26.5	21.0	---	---
26	19.5	10.5	27.0	11.5	32.0	18.0	28.0	24.0	24.0	16.5	---	---
27	17.0	11.5	29.5	13.0	30.0	20.0	27.0	23.0	23.5	20.0	---	---
28	18.0	10.0	29.5	14.0	34.0	19.0	26.0	21.0	26.0	20.0	---	---
29	20.0	9.5	29.5	15.5	33.5	20.5	27.0	22.0	27.0	21.0	---	---
30	19.0	10.5	21.5	13.5	32.0	19.5	27.0	24.5	28.0	22.0	---	---
31	---	---	22.0	11.5	---	---	24.0	21.5	28.0	22.0	---	---
MONTH	26.0	4.0	29.5	6.0	34.0	7.0	36.5	16.5	31.5	16.5	27.0	20.5

06837300 RED WILLOW CREEK ABOVE HUGH BUTLER LAKE, NE

LOCATION.--Lat 40°24'05", long 100°46'45", in NE1/4SE1/4 sec.13, T.5 N., R.31 W., Hayes County, Hydrologic Unit 10250007, on right bank 1,000 ft (305 m) above county road bridge, 7.2 mi (11.6 km) upstream from Red Willow Dam, and 12 mi (19 km) northeast of Culbertson.

DRAINAGE AREA.--600 mi² (1,550 km²), approximately, of which about 200 mi² (520 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--October 1960 to current year.

GAGE.--Water-stage recorder. Artificial control since March 1961. Datum of gage is 2,594.80 ft (790.895 m) National Geodetic Vertical Datum of 1929. Prior to Mar. 23, 1961, nonrecording gage at present site and datum.

REMARKS.--Records good except those for winter period, which are poor. Natural flow affected by pump irrigation development above station.

AVERAGE DISCHARGE.--19 years, 28.8 ft³/s (0.816 m³/s), 20,870 acre-ft/yr (25.7 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,020 ft³/s (114 m³/s) June 16, 1972, gage height, 13.27 ft (4.045 m), from rating curve extended above 1,000 ft³/s (28.3 m³/s) on basis of slope-conveyance study; minimum daily, 4.0 ft³/s (0.11 m³/s) July 4, 5, 1963.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 622 ft³/s (17.6 m³/s) Apr. 25 at 1145, gage height, 4.65 ft (1.417 m), no other peak above base of 150 ft³/s (4.25 m³/s); minimum daily, 8.5 ft³/s (0.24 m³/s) Aug. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.7	18	26	13	14	47	40	27	25	30	23	14
2	10	17	16	14	15	47	40	46	25	31	13	13
3	10	18	15	16	16	43	40	28	25	30	13	13
4	10	18	20	16	17	47	40	26	22	35	13	12
5	10	18	22	16	18	49	39	25	20	25	13	12
6	12	18	18	16	18	46	36	23	19	25	12	11
7	12	18	16	16	19	49	35	22	18	32	10	10
8	12	18	15	16	19	56	32	22	20	27	10	10
9	13	17	16	16	20	58	31	21	24	24	8.6	10
10	13	18	16	17	22	55	31	23	28	21	9.1	10
11	13	18	17	19	73	49	33	25	31	19	11	10
12	14	19	17	16	107	47	39	27	35	18	9.4	10
13	14	19	17	13	64	46	48	28	32	16	8.5	10
14	14	20	17	14	70	47	50	27	27	15	11	11
15	15	20	17	18	62	46	42	25	22	14	11	11
16	15	20	16	17	35	45	37	24	21	13	11	11
17	15	20	15	18	30	45	34	22	20	11	11	10
18	16	21	16	18	30	46	31	22	20	12	17	10
19	18	19	17	19	32	50	29	22	19	12	17	10
20	16	19	17	24	35	51	27	22	18	13	16	10
21	17	17	18	25	56	54	27	20	18	18	15	9.5
22	18	18	18	24	60	62	26	19	17	17	14	9.5
23	19	18	18	18	56	78	24	19	30	19	13	9.5
24	20	19	18	22	50	84	25	19	51	17	14	9.5
25	20	22	19	22	52	78	246	20	25	14	14	10
26	20	24	19	19	55	59	65	19	43	13	16	10
27	19	26	19	16	50	50	41	18	64	13	17	10
28	18	28	20	15	46	45	38	18	49	15	19	10
29	19	27	18	14	---	42	34	18	45	14	18	10
30	19	27	15	14	---	42	29	25	35	13	16	10
31	18	---	13	14	---	40	---	24	---	13	15	---
TOTAL	466.7	599	541	535	1141	1603	1289	726	848	589	418.6	316.0
MEAN	15.1	20.0	17.5	17.3	40.8	51.7	43.0	23.4	28.3	19.0	13.5	10.5
MAX	20	28	26	25	107	84	246	46	64	35	23	14
MIN	5.7	17	13	13	14	40	24	18	17	11	8.5	9.5
AC-FT	926	1190	1070	1060	2260	3180	2560	1440	1680	1170	830	627

CAL YR 1978 TOTAL 9251.0 MEAN 25.3 MAX 247 MIN 6.4 AC-FT 18350
WTR YR 1979 TOTAL 9072.3 MEAN 24.9 MAX 246 MIN 8.5 AC-FT 17990

06837390 HUGH BUTLER LAKE NEAR MCCOOK, NE

LOCATION.--Lat 40°21'35", long 100°39'55", in SW1/4NW1/4 sec.31, T.5 N., R.29 W., Frontier County, Hydrologic Unit 10250007, in gate-control house at outlet tube of Red Willow Dam on Red Willow Creek, 12 mi (19 km) north of McCook.

DRAINAGE AREA.--730 mi² (1,890 km²), approximately, of which about 310 mi² (800 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--September 1961 to current year.

REVISED RECORDS.--WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to July 10, 1962, nonrecording gage at present datum.

REMARKS.--Reservoir is formed by earthfill dam; storage began Sept. 5, 1961. Capacity, 31,470 acre-ft (38.8 hm³) between elevations 2,522.0 ft (769 m), sill of outlet works, and 2,581.8 ft (787 m), top of irrigation pool. Top of flood-control pool and crest of mean spillway at elevation 2,604.9 ft (794 m), capacity, 86,360 acre-ft (0.106 km³). Top of superstorage flood-control pool at elevation 2,627.8 ft (801 m), capacity, 162,600 acre-ft (0.200 km³). Dead storage, 6,310 acre-ft (7.78 hm³). Figures given herein represent total contents. Water used for irrigation in Frenchman-Cambridge irrigation project.

COOPERATION.--Capacity table furnished by Water and Power Resources Service (formerly Bureau of Reclamation).

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 41,680 acre-ft (51.4 hm³) July 15,16, 1967, elevation, 2,584.14 ft (787.646 m); minimum since operation of reservoir began, 16,930 acre-ft (20.9 hm³) Sept. 8, 1978, elevation, 2,565.31 ft (781.906 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 28,590 acre-ft (35.3 hm³) June 12, elevation, 2,575.60 ft (785.043 m); minimum, 17,130 acre-ft (21.1 hm³) Oct. 1, elevation, 2,565.51 ft (781.967 m).

Capacity table (elevation, in feet, and contents, in acre-feet)

2,565	16,630	2,580	34,910
2,570	21,800	2,575	27,800

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17140	17950	19080	20320	21230	23350	25790	27740	28340	28120	27240	23700
2	17170	17980	19150	20330	21250	23440	25850	27800	28370	28120	27240	23650
3	17170	18020	19160	20360	21290	23490	25900	27830	25840	28120	27160	23600
4	17170	18060	19230	20360	21310	23520	25960	27850	25850	28120	27130	23530
5	17180	18090	19280	20370	21350	23580	25960	27870	25870	28120	27080	23460
6	17280	18100	19310	20370	21360	23650	26000	27880	25870	28120	26960	23350
7	17210	18130	19360	20380	21390	23710	26030	27880	25890	28160	26710	23230
8	17240	18180	19380	20390	21420	23800	26050	27910	25890	28160	26440	23140
9	17260	18200	19430	20400	21440	23900	26070	27920	25960	28200	26170	23060
10	17260	18240	19460	20440	21470	23940	26150	27930	25960	28200	25870	22960
11	17290	18250	19530	20470	21650	23990	26330	27950	28570	28180	25620	22860
12	17330	18270	19550	20530	21840	24070	26340	27970	28580	28140	25390	22770
13	17330	18290	19550	20540	21950	24110	26380	27980	28460	28060	25130	22700
14	17340	18300	19640	20540	22110	24160	26420	28000	28390	27970	25100	22700
15	17380	18340	19710	20570	22250	24210	26480	28010	28300	27840	24950	22700
16	17380	18380	19750	20620	22290	24270	26520	28020	28220	27670	24870	22700
17	17420	18430	19790	20650	22350	24330	26540	28060	28090	27530	24810	22700
18	17430	18460	19850	20700	22420	24450	26590	28060	28050	27400	24860	22700
19	17460	18460	19910	20770	22470	24490	26660	28080	28000	27350	24830	22700
20	17480	18470	19940	20830	22580	24550	26660	28080	27960	27290	24750	22700
21	17500	18480	19970	20900	22700	24770	26670	28080	27930	27250	24700	22700
22	17600	18500	20000	20940	22820	25030	26670	28090	27890	27260	24590	22700
23	17620	18520	20030	20960	22880	25110	26670	28100	27850	27160	24430	22700
24	17680	18540	20070	20990	22960	25220	26820	28100	27890	27130	24220	22700
25	17730	18660	20120	21040	23050	25350	27430	28100	27890	27080	24130	22700
26	17740	18760	20150	21070	23130	25450	27580	28120	27980	27000	23970	22690
27	17770	18850	20190	21090	23210	25510	27610	28120	28060	26980	23860	22690
28	17820	18920	20230	21100	23280	25560	27620	28130	28060	27380	23830	22700
29	17850	18970	20240	21140	---	25660	27660	28310	28060	27340	23800	22700
30	17880	19050	20270	21180	---	25670	27660	28340	28060	27260	23780	22700
31	17920	---	20290	21200	---	25720	---	28340	---	27260	23740	---
MAX	17920	19050	20290	21200	23280	25720	27660	28340	28580	28200	27240	23700
MIN	17140	17950	19080	20320	21230	23350	25790	27740	25840	26980	23740	22690
‡	2566.32	2567.43	2568.61	2569.45	2571.30	2573.35	2574.89	2575.41	2575.20	2574.58	2571.70	2570.80
≠	+790	+1130	+1240	+910	+2080	+2440	+1940	+680	-280	-800	-3520	-1040

CAL YR 1978 MAX 37790 MIN 16940 -8620
WTR YR 1979 MAX 28580 MIN 17140 +5570

‡ Elevation, in feet, at end of month.
≠ Change in contents, in acre-feet.

06837500 RED WILLOW CREEK NEAR MCCOOK, NE

LOCATION.--Lat 40°20'50", long 100°38'35", in SW1/4NW1/4 sec.6, T.4 N., R.29 W., Red Willow County, Hydrologic Unit 10250007, on left bank 45 ft (14 m) downstream from bridge on U.S. Highway 83, 3 mi (5 km) downstream from Red Willow Dam and 10 mi (16 km) north of McCook.

DRAINAGE AREA.--740 mi^2 (1,920 km^2), approximately, of which about 320 mi^2 (830 km^2) contributes directly to surface runoff.

PERIOD OF RECORD.--October 1940 to September 1947. Annual maximums, water years 1958-60. October 1960 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.-- WSP 2119: Drainage area.

GAGE.--Water-stage recorder, concrete control since Dec. 23, 1965. Datum of gage is 2,485.97 ft (757.724 m) National Geodetic Vertical Datum of 1929. October 1940 to September 1947 water-stage recorder at site 45 ft (13.7 m) upstream at datum 9.55 ft (2.911 m) higher. Nov. 22, 1957, to Sept. 30, 1960, crest-stage gage, Oct. 1, 1960, to Apr. 5, 1961, nonrecording gage, and Apr. 6, 1961 to Sept. 26, 1974 water-stage recorder at site 45 ft (13.7 m) upstream, present datum.

REMARKS.--Records fair. Natural flow affected by irrigation development above station and, since Sept. 5, 1961, by storage in Hugh Butler Lake (station 06837390).

AVERAGE DISCHARGE.--26 years, 24.8 ft^3/s (0.702 m^3/s), 17,970 acre-ft/yr (22.2 hm^3/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 30,000 ft^3/s (850 m^3/s) June 22, 1947, gage height, 31.95 ft (9.738 m), present datum, from rating curve extended above 2,500 ft^3/s (70.8 m^3/s) on basis of contracted-opening measurement of peak flow; minimum daily, 0.60 ft^3/s (0.017 m^3/s) Sept. 22, 1961.

EXTREMES OUTSIDE PERIOD OF RECORD.-- Flood o June 1, 1935, reached a stage of 33.45 ft (10.196 m), from floodmarks, discharge, 45,000 ft^3/s (1,270 m^3/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 136 ft^3/s (3.85 m^3/s) Aug. 9, gage height, 9.83 ft (2.996 m); minimum daily, 2.9 ft^3/s (0.082 m^3/s) May 26, 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.2	4.2	4.2	4.3	4.1	4.3	4.5	4.0	3.3	23	27	32
2	4.2	4.2	3.8	4.3	4.3	4.2	4.5	4.0	3.3	22	21	32
3	4.1	4.1	3.1	4.5	4.2	4.1	4.0	4.0	3.1	24	21	31
4	4.0	3.8	3.3	4.3	4.1	4.1	4.0	3.9	3.1	24	19	31
5	4.0	4.0	3.4	4.1	4.0	4.1	3.9	4.0	3.1	24	26	45
6	4.0	4.4	3.0	4.1	3.8	4.1	4.0	4.0	3.3	25	63	59
7	4.0	4.4	3.6	3.9	3.5	4.1	3.8	3.9	3.3	24	115	59
8	4.0	4.4	4.1	3.6	3.5	4.4	3.9	3.8	3.3	23	134	59
9	3.9	4.4	4.1	3.4	3.5	4.4	3.9	3.4	3.7	24	134	59
10	3.9	4.1	4.3	3.1	3.7	4.2	4.0	3.3	3.9	23	129	55
11	3.9	4.1	4.2	3.1	3.7	4.2	4.4	3.2	3.9	23	122	47
12	3.9	4.4	4.1	3.1	3.7	4.2	4.0	3.1	23	24	122	48
13	3.9	4.6	4.1	3.1	3.7	4.2	3.8	3.2	89	40	114	47
14	3.6	4.7	4.2	3.1	3.8	4.1	3.9	3.1	68	40	99	29
15	3.5	4.5	4.3	3.1	3.8	4.1	3.9	3.2	46	50	80	6.0
16	3.8	4.5	4.3	3.2	4.0	4.2	4.0	3.2	47	77	61	5.8
17	4.0	4.5	4.5	3.3	4.0	4.0	3.7	3.3	47	71	46	5.5
18	4.0	4.2	4.6	3.3	4.0	4.0	3.7	3.7	33	64	41	5.2
19	4.0	4.1	4.5	3.4	4.2	4.1	3.9	3.1	21	48	43	4.9
20	4.0	4.1	4.2	3.5	4.2	4.2	3.5	3.1	22	41	47	4.9
21	4.0	3.9	4.1	3.5	4.5	4.6	3.5	3.1	21	41	57	4.9
22	3.8	3.9	4.3	3.7	4.5	5.7	3.5	3.1	22	49	68	4.7
23	3.6	3.8	4.4	3.8	4.5	5.1	3.3	3.0	21	67	98	4.4
24	4.0	3.5	4.3	3.9	4.3	4.1	3.3	3.0	22	57	112	4.4
25	3.9	3.5	4.3	3.9	4.3	3.8	5.2	3.0	22	48	109	4.4
26	4.1	3.7	4.4	4.1	4.3	3.3	3.7	2.9	23	39	110	4.4
27	4.2	4.0	4.3	4.1	4.3	3.3	3.9	2.9	22	39	78	4.4
28	4.2	4.2	4.2	4.1	4.3	3.1	3.7	3.5	22	43	42	4.2
29	4.2	4.3	4.2	4.1	---	3.4	3.9	3.6	23	40	34	4.2
30	4.2	4.3	4.3	4.1	---	4.4	3.9	3.9	23	40	34	4.4
31	4.3	---	4.3	4.1	---	4.5	---	3.3	---	36	33	---
TOTAL	123.4	124.8	127.0	115.2	112.8	128.6	117.2	105.8	654.3	1213	2239	709.7
MEAN	3.98	4.16	4.10	3.72	4.03	4.15	3.91	3.41	21.8	39.1	72.2	23.7
MAX	4.3	4.7	4.6	4.5	4.5	5.7	5.2	4.0	89	77	134	59
MIN	3.5	3.5	3.0	3.1	3.5	3.1	3.3	2.9	3.1	22	19	4.2
AC-FT	245	248	252	228	224	255	232	210	1300	2410	4440	1410

CAL YR 1978	TOTAL	12437.4	MEAN 34.1	MAX 237	MIN 3.0	AC-FT 24670
WTR YR 1979	TOTAL	5770.8	MEAN 15.8	MAX 134	MIN 2.9	AC-FT 11450

06838000 RED WILLOW CREEK NEAR RED WILLOW, NE

LOCATION.--Lat 40°14'10", long 100°30'00", in NE1/4NE1/4 sec.17, T.3 N., R.28 W., Red Willow County, Hydrologic Unit 10250007, on right bank near downstream side of bridge on U.S. Highways 6 and 34, 0.8 mi (1.3 km) north of Red Willow and 2.5 mi (4.0 km) upstream from mouth.

DRAINAGE AREA.--830 mi² (2,150 km²), approximately, of which about 410 mi² (1,060 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--September 1939 to current year.

REVISED RECORDS.--WSP 1510: 1945(M). WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,398.64 ft (731.105 m) National Geodetic Vertical Datum of 1929. Prior to May 26, 1945, nonrecording gage at bridge 1.2 mi (1.9 km) upstream at datum 11.16 ft (3.402 m) higher, and May 26, 1945 to Aug. 2, 1974, water-stage recorder on left bank at downstream side of bridge, present datum.

REMARKS.--Records fair except those for winter period, which are poor. Natural flow affected by irrigation development above station, since Sept. 5, 1961, by storage in Hugh Butler Lake (station 06837390), and since June 1963 by Red Willow Canal which diverts 4.5 mi (7.2 km) above station for irrigation of about 4,150 acres (16.8 km²).

AVERAGE DISCHARGE.--40 years, 30.3 ft³/s (0.858 m³/s), 21,950 acre-ft/yr (27.1 hm³/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 30,000 ft³/s (850 m³/s) June 22, 1947, gage height, 18.36 ft (5.596 m), from rating curve extended above 6,800 ft³/s (193 m³/s) on basis of slope-area measurement of peak flow; minimum daily, 0.33 ft³/s (0.009 m³/s) Sept. 8, 1971.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 820 ft³/s (23.2 m³/s) July 28, gage height, 10.92 ft (3.328 m); minimum daily, 0.54 ft³/s (0.015 m³/s) Sept. 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.4	6.8	7.6	3.8	5.2	8.8	9.5	8.6	7.4	8.2	25	12
2	5.7	6.8	6.0	3.8	5.2	9.0	9.3	9.6	7.7	14	18	12
3	5.5	6.6	6.2	4.0	5.8	9.0	9.3	8.8	7.2	11	16	12
4	5.7	6.5	7.0	4.0	6.4	9.6	9.3	8.8	7.0	13	12	10
5	5.6	5.9	7.0	4.0	7.2	10	9.1	8.6	6.8	8.0	9.8	8.7
6	5.9	6.1	6.4	4.2	7.4	10	9.3	8.4	6.9	8.5	18	19
7	6.1	6.6	5.6	4.6	7.8	11	9.1	8.1	6.9	11	20	16
8	6.2	6.6	5.6	5.0	8.0	11	9.3	8.2	8.0	11	30	16
9	5.8	6.8	5.8	4.8	10	10	9.3	8.8	9.6	10	39	15
10	5.8	6.6	6.4	4.8	11	9.6	9.5	8.5	8.8	13	33	15
11	5.7	6.6	7.0	5.4	15	9.5	11	8.3	8.2	11	21	8.8
12	5.4	6.6	7.0	5.4	18	9.5	10	8.3	2.4	11	20	8.9
13	5.3	6.9	7.2	5.0	20	9.5	9.8	8.3	14	15	23	10
14	5.9	7.3	7.4	4.6	24	9.4	9.6	8.2	38	16	28	16
15	6.3	6.7	7.8	5.2	20	9.4	9.6	8.1	15	16	21	9.6
16	6.5	6.8	7.6	5.6	12	9.4	9.8	8.1	15	20	24	6.6
17	6.6	6.7	7.4	6.4	7.0	9.4	9.7	8.0	15	20	15	6.2
18	6.8	6.5	7.4	5.8	7.4	9.6	9.6	9.9	15	21	12	16
19	6.8	6.0	7.6	6.2	8.6	13	9.6	8.7	3.7	22	11	6.7
20	6.8	5.6	7.2	6.6	8.4	12	9.4	8.8	1.4	16	10	1.0
21	6.8	5.0	7.0	7.0	8.0	12	9.3	8.8	3.9	15	15	.54
22	7.2	5.4	7.0	7.6	8.0	15	9.3	9.0	4.3	15	8.7	3.9
23	7.4	6.2	6.8	7.4	7.6	13	9.3	9.0	4.6	26	12	4.8
24	6.8	6.6	6.6	7.4	7.6	11	9.4	9.0	4.6	17	43	13
25	7.0	7.0	6.0	7.2	8.0	10	48	9.4	6.9	20	27	2.3
26	7.0	7.2	5.4	6.8	8.8	10	16	9.8	8.3	14	33	1.5
27	6.9	7.6	4.2	6.0	8.6	10	9.4	10	7.6	14	48	5.1
28	7.0	7.6	4.2	5.6	8.4	10	8.8	10	7.8	390	23	17
29	6.8	7.7	3.8	5.0	---	9.6	8.5	11	7.8	48	13	6.4
30	6.7	7.6	3.6	5.0	---	9.5	8.4	12	7.5	31	10	6.0
31	6.7	---	3.6	5.0	---	9.1	---	8.1	---	32	12	---
TOTAL	197.1	198.9	195.4	169.2	279.4	317.9	327.5	277.2	267.3	897.7	650.5	286.04
MEAN	6.36	6.63	6.30	5.46	9.98	10.3	10.9	8.94	8.91	29.0	21.0	9.53
MAX	7.4	7.7	7.8	7.6	24	15	48	12	38	390	48	19
MIN	5.3	5.0	3.6	3.8	5.2	8.8	8.4	8.0	1.4	8.0	8.7	.54
AC-FT	391	395	388	336	554	631	650	550	530	1780	1290	567

CAL YR 1978 TOTAL 7626.90 MEAN 20.9 MAX 148 MIN 1.3 AC-FT 15130
WTR YR 1979 TOTAL 4064.14 MEAN 11.1 MAX 390 MIN .54 AC-FT 8060

06840000 FOX CREEK AT CURTIS, NE

LOCATION.--Lat 40°38'00", long 100°29'20", in SE1/4NW1/4 sec.27, T.8 N., R.28 W., Frontier County, Hydrologic Unit 10250008, on left bank 15 ft (5 m) upstream from bridge on State Highway 23, 0.5 mi (0.8 km) upstream from mouth, and 1 mi (2 km) east of Curtis.

DRAINAGE AREA.--74 mi^2 (190 km^2), approximately.

PERIOD OF RECORD.--March 1951 to September 1958. Annual maximums, water years 1960-70. October 1977 to September 1978 (not previously published).

GAGE.--Water-stage recorder. Datum of gage is 2,519.58 ft (767.968 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records poor.

AVERAGE DISCHARGE.--8 years (1952-1958, 1978), 7.62 ft^3/s (0.216 m^3/s), 5,520 acre-ft/yr (6.81 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,340 ft^3/s (94.6 m^3/s) May 31, 1951, gage height, 15.35 ft (4.679 m), minimum daily, 1.1 ft^3/s (0.031 m^3/s) Sept. 28, 1978.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 27.3 ft (8.32 m) June 21, 1947, from floodmark (discharge not determined).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 345 ft^3/s (9.77 m^3/s) July 20, gage height, 9.0 ft (2.74 m), from high-water mark; minimum daily, 1.1 ft^3/s (0.031 m^3/s) Sept. 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.5	3.8	5.2	5.6	5.0	6.5	7.1	6.5	6.9	1.6	3.7	2.5
2	3.5	3.8	5.2	5.5	5.0	6.5	7.1	7.3	6.9	1.6	3.7	2.3
3	3.5	3.8	5.2	5.4	6.2	6.5	7.1	7.0	6.8	1.5	3.3	2.4
4	3.5	3.8	5.2	5.4	8.0	6.5	7.0	6.5	6.6	1.5	2.8	2.3
5	3.5	3.8	5.2	5.5	7.8	6.5	7.0	6.0	6.7	1.5	2.6	2.3
6	3.6	3.9	4.8	5.6	6.2	6.5	6.7	6.5	7.3	1.6	2.3	2.1
7	3.6	4.0	4.7	5.6	6.2	6.8	6.4	7.8	6.8	1.6	2.0	2.0
8	3.6	4.1	4.6	5.6	6.1	8.0	6.0	8.1	6.4	1.6	1.6	1.8
9	3.6	4.5	4.6	5.3	6.0	15	6.0	7.8	6.4	1.9	2.2	2.0
10	3.7	5.0	4.8	5.4	6.0	45	6.0	7.6	6.2	2.3	2.6	2.1
11	3.8	5.2	5.0	5.3	6.1	150	6.0	7.1	5.9	3.0	2.5	2.0
12	3.8	5.1	5.2	5.4	6.1	125	6.0	6.6	5.8	2.1	2.5	1.9
13	3.9	5.0	5.3	5.5	6.1	75	6.5	6.4	5.2	2.0	2.2	2.0
14	3.9	4.9	5.4	5.5	6.0	25	7.5	6.4	5.2	2.0	2.2	1.9
15	4.0	4.8	5.5	5.2	5.9	15	7.0	6.3	5.1	2.4	2.4	1.9
16	4.1	4.8	5.5	5.0	5.8	10	6.8	6.7	4.9	2.6	2.6	1.8
17	4.2	4.8	5.6	4.8	5.8	9.5	6.8	8.0	4.6	3.0	2.6	1.8
18	4.2	4.8	5.6	4.7	5.8	9.1	6.8	7.7	4.4	2.7	2.6	2.0
19	4.2	4.8	5.6	4.6	5.9	9.0	6.6	7.7	4.4	2.6	2.4	1.8
20	4.2	4.8	5.6	4.7	6.0	8.8	6.6	7.7	4.4	50	2.5	1.6
21	4.2	4.6	5.6	4.8	6.2	8.7	6.6	7.5	2.1	20	2.6	1.7
22	4.2	4.5	5.7	5.3	6.5	8.4	6.5	7.4	1.9	9.5	2.4	1.5
23	4.2	4.5	5.7	6.0	9.0	8.2	6.5	7.2	1.9	4.6	2.2	1.5
24	4.2	4.5	5.7	5.5	35	8.0	6.4	7.8	1.9	4.6	2.2	1.4
25	4.1	4.6	5.7	5.4	80	7.7	6.3	7.5	1.9	4.7	2.0	1.3
26	4.0	4.8	5.7	5.2	50	7.4	6.2	7.1	1.9	4.8	2.0	1.3
27	4.0	4.9	5.7	5.0	10	7.3	6.1	15	1.9	4.2	2.0	1.3
28	4.0	5.0	5.7	5.0	7.0	7.2	6.0	8.5	1.9	3.8	2.1	1.1
29	4.0	5.1	5.7	5.0	---	7.2	6.0	7.1	1.8	3.8	2.2	1.2
30	3.9	5.2	5.7	5.0	---	7.2	6.0	7.1	1.7	3.4	2.4	1.6
31	3.9	---	5.7	5.0	---	7.1	---	7.1	---	3.4	2.5	---
TOTAL	120.6	137.2	166.4	162.8	325.7	634.6	195.6	231.0	135.8	155.9	75.9	54.4
MEAN	3.89	4.57	5.37	5.25	11.6	20.5	6.52	7.45	4.53	5.03	2.45	1.81
MAX	4.2	5.2	5.7	6.0	80	150	7.5	15	7.3	50	3.7	2.5
MIN	3.5	3.8	4.6	4.6	5.0	6.5	6.0	6.0	1.7	1.5	1.6	1.1
AC-FT	239	272	330	323	646	1260	388	458	269	309	151	108

WTR YR 1978 TOTAL 2395.9 MEAN 6.56 MAX 150 MIN 1.1 AC-FT 4750

06840000 FOX CREEK AT CURTIS, NE

LOCATION.--Lat 40°38'00", long 100°29'20", in SE1/4NW1/4 sec.27, T.8 N., R.28 W., Frontier County, Hydrologic Unit 10250008, on left bank 15 ft (5 m) upstream from bridge on State Highway 23, 0.5 mi (0.8 km) upstream from mouth, and 1 mi (2 km) east of Curtis.

DRAINAGE AREA.--74 mi² (190 km²), approximately.

PERIOD OF RECORD.--March 1951 to September 1958. Annual maximums, water years 1960-70. October 1977 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,519.58 ft (767.968 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records poor.

AVERAGE DISCHARGE.--9 years (1952-58, 1978-79), 7.49 ft³/s (0.212 m³/s), 5,430 acre-ft/yr (6.70 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,340 ft³/s (94.6 m³/s) May 31, 1951, gage height, 15.35 ft (4.679 m), minimum daily, 1.1 ft³/s (0.031 m³/s) Sept. 28, 1978.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 27.3 ft (8.32 m) June 21, 1947, from floodmark (discharge not determined).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 966 ft³/s (27.4 m³/s) July 28, gage height, 11.87 ft (3.618 m); minimum daily, 1.9 ft³/s (0.054 m³/s) Oct. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.9	4.2	5.2	4.7	5.0	7.5	5.7	5.4	5.2	5.8	7.0	4.8
2	2.0	4.1	5.2	4.6	5.0	13	5.7	5.5	5.2	5.5	6.5	4.6
3	2.2	4.2	5.4	4.5	5.0	23	5.5	5.4	5.2	4.8	6.0	4.4
4	2.7	4.1	5.2	4.5	4.8	9.3	5.8	5.3	5.1	18	6.0	4.3
5	3.1	4.0	5.0	4.6	4.7	8.0	5.7	5.6	5.1	8.7	6.0	4.3
6	3.3	3.9	4.8	4.7	4.6	12	5.8	5.7	5.1	7.0	5.8	4.7
7	3.2	4.0	4.5	4.8	4.7	15	5.7	5.4	5.2	6.1	5.7	4.5
8	3.1	4.1	4.5	5.0	4.8	7.6	5.5	5.6	5.7	5.9	4.9	4.5
9	3.1	4.2	4.7	4.8	4.8	7.1	5.6	5.9	6.5	5.4	4.8	4.0
10	3.2	3.9	4.8	4.6	5.1	6.6	5.6	5.9	6.2	5.2	5.5	3.8
11	3.2	3.9	4.8	4.6	5.3	6.3	6.8	5.9	5.5	4.9	4.6	3.7
12	3.4	4.0	5.0	4.6	6.5	6.4	6.8	5.8	5.1	4.6	4.4	4.0
13	4.1	4.0	4.8	4.3	6.6	6.6	6.4	5.8	4.8	4.7	4.8	4.3
14	3.7	4.1	4.8	4.7	8.4	6.5	6.0	5.9	4.8	4.2	4.6	4.3
15	3.6	3.9	4.8	4.6	6.8	6.5	5.9	5.8	4.7	4.2	4.4	4.2
16	3.5	3.9	4.7	4.3	5.7	6.6	5.9	5.8	4.7	4.2	5.8	4.5
17	3.5	4.0	4.6	4.3	5.8	6.4	5.9	5.8	4.5	4.1	4.6	4.6
18	3.4	3.9	4.6	4.3	5.7	6.8	5.9	5.7	5.0	4.2	18	4.6
19	3.4	4.3	5.0	4.6	6.4	7.2	5.8	5.7	5.5	4.3	9.8	4.5
20	3.4	3.5	5.0	5.0	15	6.3	5.9	5.6	5.1	4.4	5.1	4.7
21	3.5	3.6	4.9	5.4	20	6.7	5.9	5.5	4.8	4.2	4.9	4.4
22	3.6	4.0	5.1	5.4	20	9.8	5.9	5.5	4.8	4.3	4.3	4.5
23	3.7	4.2	4.8	5.5	25	8.3	5.8	5.4	6.5	2.3	4.2	4.2
24	3.8	4.3	4.8	5.2	19	6.6	5.8	5.2	5.8	2.3	4.3	4.1
25	3.7	4.8	5.0	5.4	11	6.2	6.3	5.2	8.2	2.7	8.3	4.1
26	3.8	5.6	4.8	5.4	18	6.1	6.2	5.4	12	4.3	140	4.1
27	3.9	4.8	4.4	5.4	28	5.9	6.0	5.4	5.6	10	9.3	4.0
28	3.9	5.2	5.1	5.1	12	5.8	6.0	5.4	6.1	142	5.9	3.8
29	3.4	5.1	5.0	4.8	---	5.9	5.9	5.2	5.3	10	5.4	3.7
30	3.4	5.1	4.8	4.8	---	5.8	5.6	8.4	4.6	9.0	5.1	3.5
31	3.2	---	4.8	5.0	---	5.8	---	6.1	---	8.0	5.0	---
TOTAL	102.9	126.9	150.9	149.5	273.7	247.6	177.3	176.2	167.9	315.3	320.6	127.7
MEAN	3.32	4.23	4.87	4.82	9.78	7.99	5.91	5.68	5.60	10.2	10.3	4.26
MAX	4.1	5.6	5.4	5.5	28	23	6.8	8.4	12	142	140	4.8
MIN	1.9	3.5	4.4	4.3	4.6	5.8	5.5	5.2	4.5	2.3	4.2	3.5
AC-FT	204	252	299	297	543	491	352	349	333	625	636	253

CAL YR 1978 TOTAL 2352.8 MEAN 6.44 MAX 150 MIN 1.1 AC-FT 4670
WTR YR 1979 TOTAL 2336.5 MEAN 6.40 MAX 142 MIN 1.9 AC-FT 4630

06841000 MEDICINE CREEK ABOVE HARRY STRUNK LAKE, NE

LOCATION.--Lat 40°30'10", long 100°19'20", in SW1/4 sec.7, T.6 N., R.26 W., Frontier County, Hydrologic Unit 10250008, on right bank 0.3 mi (0.5 km) downstream from top of Harry Strunk Lake flood-control pool, 2.5 mi (4.0 km) upstream from top of irrigation pool, 3.8 mi (6.1 km) southeast of Stockville, and 13.5 mi (21.7 km) upstream from Medicine Creek Dam.

DRAINAGE AREA.--770 mi² (1,990 km²), approximately, of which about 530 mi² (1,370 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--January 1950 to current year. Prior to October 1950, published as "above Medicine Creek Reservoir."

REVISED RECORDS.--WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Concrete control since November 1950. Datum of gage is 2,380.94 ft (725.711 m) National Geodetic Vertical Datum of 1929 (Water and Power Resource Service, formerly Bureau of Reclamation, bench mark).

REMARKS.--Records good except those for winter period, which are poor. Natural flow affected by irrigation development above station.

AVERAGE DISCHARGE.--29 years, 67.8 ft³/s (1.920 m³/s), 49,120 acre-ft/yr (60.6 hm³/yr); median of yearly mean discharges, 59 ft³/s (1.671 m³/s), 42,700 acre-ft/yr (52.6 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,600 ft³/s (329 m³/s) June 21, 1967, gage height, 20.05 ft (6.111 m); minimum daily, 13 ft³/s (0.37 m³/s) Aug. 25, 1976.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1874, 24.4 ft (7.44 m) June 22, 1947, from floodmark (discharge not determined).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,200 ft³/s (34.0 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
July 4	2245	*3640	103	15.77	4.807	Aug. 25	2230	1760	49.8	12.40	3.780
July 28	1030	2160	61.2	13.33	4.063						

Minimum daily discharge, 24 ft³/s (0.68 m³/s) Oct. 2, 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	43	53	33	35	198	62	54	67	122	97	47
2	24	43	50	34	36	178	61	62	58	95	71	47
3	24	43	47	34	37	202	61	54	51	67	57	46
4	25	43	46	35	38	231	61	53	48	836	50	44
5	26	43	42	35	38	112	62	52	46	822	46	43
6	27	43	40	36	38	78	62	52	44	179	42	41
7	29	43	38	37	38	80	62	52	41	144	38	39
8	29	43	38	38	39	82	61	52	42	109	37	41
9	31	43	40	38	40	74	60	51	48	83	37	38
10	33	43	42	38	45	69	60	53	56	68	38	37
11	34	43	45	36	50	66	60	57	62	58	37	37
12	34	42	46	36	55	64	61	59	60	52	38	38
13	33	43	47	36	60	62	61	57	51	48	36	38
14	34	44	48	36	70	62	61	55	46	45	39	40
15	34	44	48	36	80	62	60	54	42	43	40	40
16	35	45	50	36	60	61	60	52	41	42	37	39
17	36	46	50	38	55	61	58	50	40	42	36	38
18	37	46	50	42	55	65	59	50	40	42	136	38
19	37	45	50	45	70	68	65	50	41	43	139	37
20	38	45	50	46	100	73	62	51	41	42	130	37
21	39	48	50	48	200	74	59	50	40	39	75	36
22	42	55	50	48	440	75	59	49	40	35	54	36
23	42	58	50	48	480	80	57	48	64	34	47	36
24	49	58	50	48	434	81	57	47	113	43	44	36
25	49	50	45	45	363	82	92	46	142	56	244	36
26	44	54	40	40	280	76	78	45	195	52	517	35
27	42	56	40	35	288	69	62	44	144	39	234	35
28	41	56	35	34	260	66	56	42	97	1260	113	35
29	42	54	33	34	---	64	53	41	75	369	73	36
30	42	52	33	34	---	64	52	62	56	263	56	35
31	42	---	33	34	---	63	---	94	---	139	50	---
TOTAL	1099	1414	1379	1193	3784	2742	1844	1638	1931	5311	2688	1161
MEAN	35.5	47.1	44.5	38.5	135	88.5	61.5	52.8	64.4	171	86.7	38.7
MAX	49	58	53	48	480	231	92	94	195	1260	517	47
MIN	24	42	33	33	35	61	52	41	40	34	36	35
AC-FT	2180	2800	2740	2370	7510	5440	3660	3250	3830	10530	5330	2300

CAL YR 1978 TOTAL 20399 MEAN 55.9 MAX 790 MIN 15 AC-FT 40460
WTR YR 1979 TOTAL 26184 MEAN 71.7 MAX 1260 MIN 24 AC-FT 51940

06842000 HARRY STRUNK LAKE NEAR CAMBRIDGE, NE

LOCATION.--Lat 40°22'40", long 100°13'40", in NE1/4 sec.25, T.5 N., R.26 W., Frontier County, Hydrologic Unit 10250008, near right bank in control house at outlet tube of Medicine Creek Dam on Medicine Creek, 7 mi (11 km) northwest of Cambridge.

DRAINAGE AREA.--880 mi² (2,280 km²), approximately, of which about 640 mi² (1,660 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--August 1949 to current year.

REVISED RECORDS.--WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to Aug. 16, 1960, nonrecording gage at present datum.

REMARKS.--Reservoir is formed by earthfill dam; storage began Aug. 8, 1949. Capacity, 32,230 acre-ft (39.7 hm³) between elevation 2,335.0 ft (712 m), sill of outlet gates, and 2,366.1 ft (721 m), top of storage pool and crest of slot in spillway. Top of flood-control pool and crest of main spillway at elevation 2,386.2 ft (727 m), capacity, 89,310 acre-ft (0.110 km³). Top of superstorage flood-control pool at elevation 2,400.0 ft (732 m), capacity, 147,400 acre-ft (0.182 km³). Maximum water-surface elevation, 2,408.9 ft (734 m), 196,000 acre-ft (0.242 km³). Dead storage, 4,910 acre-ft (6.05 hm³). Figures given herein represent total contents. Water used for irrigation in Frenchman-Cambridge irrigation project.

COOPERATION.--Capacity table furnished by Water and Power Resources Service (formerly Bureau of Reclamation).

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 55,750 acre-ft (68.7 hm³) Mar. 23, 1960, elevation, 2,374.10 ft (723.626 m); minimum since operation of reservoir began, 7,840 acre-ft (9.67 hm³) Sept. 7, 1978, elevation, 2,340.39 ft (713.351 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 41,080 acre-ft (50.7 hm³) July 30, 31, elevation, 2,368.15 ft (721.812 m); minimum, 8,480 acre-ft (10.5 hm³) Oct. 1, elevation, 2,341.40 ft (713.659 m).

Capacity table (elevation, in feet, and contents, in acre-feet)

2,340	7,600	2,360	27,100
2,345	11,880	2,365	35,140
2,350	15,250	2,370	44,890
2,355	20,550		

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8560	10530	13020	15480	17890	22760	27350	30540	33130	34860	41000	36700
2	8590	10600	13080	15520	17950	23000	27430	30720	33200	35070	40920	36630
3	8620	10680	13110	15590	18050	23130	27510	30770	33270	35180	40740	36570
4	8650	10770	13200	15680	18100	23300	27600	30850	33370	35720	40540	36500
5	8690	10820	13280	15770	18180	23490	27660	30960	33400	37630	40410	36360
6	8720	10890	13360	15850	18250	23610	27740	31030	33430	38040	39940	36010
7	8810	10960	13490	15900	18310	23790	27840	31110	33470	38230	39300	35700
8	8840	11050	13550	15970	18390	24010	27910	31190	33570	38420	40600	35560
9	8900	11160	13610	16050	18430	24100	27970	31280	33730	38470	37980	35390
10	8940	11230	13700	16110	18520	24250	28110	31350	33800	38530	37310	35160
11	9010	11260	13780	16180	18660	24370	28300	31440	33900	38600	36730	34830
12	9080	11290	13870	16300	18840	24480	28360	31520	34010	38590	36210	34670
13	9110	11430	13960	16330	19030	24630	28490	31600	34010	38440	35630	34600
14	9150	11470	14060	16410	19170	24720	28600	31680	33750	38250	35490	34600
15	9230	11590	14140	16500	19340	24850	28700	31730	33630	37970	35180	34670
16	9270	11680	14210	16590	19530	24980	28750	31800	33610	37660	34980	34710
17	9340	11760	14310	16660	19670	25080	28860	31970	33570	37680	34900	34760
18	9390	11830	14410	16810	19780	25260	28980	32050	33400	37720	35000	34760
19	9450	11880	14500	16840	19910	25350	29120	32130	33270	37740	35000	34790
20	9540	11930	14570	16960	20030	25480	29200	32200	33170	37780	35120	34830
21	9600	12000	14650	17030	20270	25820	29240	32280	33120	37800	35120	34830
22	9720	12060	14750	17090	20670	26150	29320	32370	33070	37610	35040	34930
23	9780	12180	14850	17170	21080	26290	29380	32420	33070	37680	34860	34930
24	9910	12260	14940	17290	21500	26420	29700	32490	33270	37720	34600	34970
25	9980	12410	15020	17390	21810	26590	29980	32550	33430	37810	35110	35020
26	10070	12520	15070	17440	22070	26690	30100	32600	33890	37810	36120	35050
27	10140	12630	15140	17520	22330	26800	30200	32670	34150	38020	36430	35050
28	10250	12740	15210	17570	22580	26890	30300	32770	34410	40000	36520	35070
29	10300	12830	15280	17680	---	27010	30330	32920	34510	40800	36640	35140
30	10370	12940	15340	17710	---	27060	30430	32950	34600	41080	36770	35190
31	10450	---	15420	17800	---	27230	---	33030	---	41020	36810	---
MAX	10450	12940	15420	17800	22580	27230	30430	33030	34600	41080	41000	36700
MIN	8560	10530	13020	15480	17890	22760	27350	30540	33070	34860	34600	34600
†	2344.25	2347.41	2350.17	2352.54	2356.66	2360.09	2362.19	2363.78	2364.69	2368.12	2365.92	2365.02
‡	+1970	+2490	+2480	+2380	+4780	+4650	+3200	+2600	+1570	+6420	-4210	-1620

CAL YR 1978 MAX 41570 MIN 7850 -14680
WTR YR 1979 MAX 41080 MIN 8560 +26710

† Elevation, in feet, at end of month.
‡ Change in contents, in acre-feet.

06842500 MEDICINE CREEK BELOW HARRY STRUNK LAKE, NE

LOCATION.--Lat 40°22'20", long 100°13'20", at center of sec.25, T.5 N., R.26 W., Frontier County, Hydrologic Unit 10250008, on right bank 0.5 mi (0.8 km) downstream from Medicine Creek Dam and 6.5 mi (10.5 km) northwest of Cambridge.

DRAINAGE AREA.--880 mi² (2,280 km²), approximately, of which about 640 mi² (1,660 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--October 1949 to current year. Prior to October 1950, published as "below Medicine Creek Dam." Monthly discharge only for some periods, published in WSP 1730.

REVISED RECORDS.--WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Concrete control since August 1950. Datum of gage is 2,295.26 ft (699.595 m) National Geodetic Vertical Datum of 1929 (Water and Power Resources Service, formerly Bureau of Reclamation, bench mark). Prior to Apr. 24, 1950, nonrecording gage at site 0.5 mi (0.8 km) upstream at different datum.

REMARKS.--Records good. Flow regulated by Harry Strunk Lake (station 06842000).

AVERAGE DISCHARGE.--30 years, 63.0 ft³/s (1.784 m³/s), 45,640 acre-ft/yr (56.3 hm³/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,300 ft³/s (36.8 m³/s) Mar. 23, 1960, gage height, 5.97 ft (1.820 m); minimum daily, 0.10 ft³/s (0.003 m³/s) Nov. 13, 1952, Sept. 19, 1963, Sept. 27-29, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 362 ft³/s (10.3 m³/s) Aug. 7, gage height, 3.05 ft (0.930 m); minimum daily, 0.54 ft³/s (0.015 m³/s) Sept. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	1.3	1.2	.89	2.4	2.4	.85	.82	.81	1.1	107	56
2	.99	1.2	1.1	.92	2.4	2.6	.79	.98	.79	.94	104	56
3	.99	1.4	1.1	.92	2.4	2.4	.82	.82	.78	.83	99	56
4	1.1	1.4	1.0	.92	2.4	2.4	.78	.81	.76	1.0	92	61
5	1.1	1.4	1.0	.92	2.4	2.4	.72	.82	.73	1.2	108	105
6	1.2	1.4	1.0	.92	2.4	2.6	.71	.93	.69	8.2	216	139
7	1.2	1.4	1.0	.92	2.4	2.6	.74	.96	.75	14	317	133
8	1.3	1.4	1.0	.92	2.4	2.7	.77	1.0	.94	19	342	123
9	1.3	1.4	.97	.92	2.4	2.0	.78	1.1	1.3	21	319	123
10	1.1	1.4	1.0	.92	2.4	1.3	.83	1.0	.89	23	303	124
11	1.0	1.4	1.0	.92	2.4	1.3	.81	1.0	.82	24	295	122
12	1.4	1.4	1.0	.92	2.4	1.5	.68	1.0	.76	31	293	101
13	1.6	1.4	1.0	.91	2.4	1.5	.66	1.0	48	80	271	74
14	1.6	1.2	1.0	.92	2.4	1.3	.67	1.0	105	92	226	28
15	1.6	1.2	1.0	.92	2.4	1.4	.63	.92	60	102	167	1.1
16	1.5	1.2	1.0	.92	2.4	1.4	.67	.80	26	116	122	1.0
17	1.5	1.3	1.0	.92	2.4	1.4	.68	.90	23	45	108	1.0
18	1.7	1.3	1.0	.94	2.4	1.5	.62	.90	95	6.3	108	1.0
19	1.8	1.2	1.0	.92	2.4	1.4	.64	.82	78	6.6	108	.91
20	1.7	1.2	1.0	.91	2.4	1.4	.60	.80	67	6.7	96	.54
21	1.7	1.2	1.0	.92	2.4	2.1	.63	.81	60	49	88	.70
22	1.5	1.2	1.0	.91	2.4	2.2	.63	.83	60	106	88	1.0
23	1.0	1.2	.90	1.2	2.4	1.6	.63	.83	61	44	110	.91
24	1.0	1.2	.90	1.1	2.4	1.5	.65	.82	60	5.1	144	.92
25	1.1	1.4	.90	2.4	2.4	1.4	2.4	.80	31	6.0	145	.91
26	1.0	1.3	.90	2.4	2.4	1.3	.87	.79	32	52	144	.88
27	1.1	1.2	.92	2.4	2.4	1.3	1.3	.78	14	81	89	1.0
28	1.4	1.1	.92	2.4	2.4	1.2	.82	.77	1.2	54	56	1.1
29	1.3	1.1	.91	2.4	---	1.2	.81	.77	.98	86	22	1.2
30	1.2	1.1	.92	2.4	---	1.1	.82	1.1	.97	108	1.2	1.1
31	1.2	---	.92	2.4	---	.81	---	.79	---	109	16	---
TOTAL	40.28	38.5	30.56	39.30	67.2	53.21	24.01	27.47	833.17	1295.97	4704.2	1316.27
MEAN	1.30	1.28	.99	1.27	2.40	1.72	.80	.89	27.8	41.8	152	43.9
MAX	1.8	1.4	1.2	2.4	2.4	2.7	2.4	1.1	105	116	342	139
MIN	.99	1.1	.90	.89	2.4	.81	.60	.77	.69	.83	1.2	.54
AC-FT	80	76	61	78	133	106	48	54	1650	2570	9330	2610

CAL YR 1978 TOTAL 27760.80 MEAN 76.1 MAX 425 MIN .20 AC-FT 55060
WTR YR 1979 TOTAL 8470.14 MEAN 23.2 MAX 342 MIN .54 AC-FT 16800

06843500 REPUBLICAN RIVER AT CAMBRIDGE, NE

LOCATION.--Lat 40°17'05", long 100°08'35", in NW1/4SE1/4 sec.28, T.4 N., R.25 W., Furnas County, Hydrologic Unit 10250004, on left bank 400 ft (122 m) south of U.S. Highways 6 and 34, 0.5 mi (0.8 km) downstream from Medicine Creek, 1 mi (2 km) east of Cambridge, and 1.3 mi (2.1 km) upstream from Cambridge diversion dam.

DRAINAGE AREA.--14,520 mi² (37,600 km²), approximately, of which about 7,810 mi² (20,200 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--September 1945 to current year.

REVISED RECORDS.--WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,239.07 ft (682.469 m) National Geodetic Vertical Datum of 1929. Prior to July 13, 1948, nonrecording gage at site 150 ft (46 m) upstream at same datum and July 13, 1948, to Sept. 25, 1950, at present site and datum.

REMARKS.--Records good except those for winter period, which are poor. Natural flow affected by irrigation development above station and since 1949 by regulation from upstream reservoirs.

AVERAGE DISCHARGE.--34 years, 320 ft³/s (9.062 m³/s), 231,800 acre-ft/yr (0.286 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 160,000 ft³/s (4,530 m³/s) June 22, 1947, gage height, 16.7 ft (5.09 m), from floodmarks, from rating curve extended above 12,000 ft³/s (340 m³/s) on basis of slope-area measurement of peak flow; minimum daily, 0.07 ft³/s (0.002 m³/s) Sept. 27, 1978.

EXTREMES OUTSIDE PERIOD OF RECORD.-- Maximum stage since at least 1826, 17.6 ft (5.36 m) May 31 to June 1, 1935, from information by local resident, discharge, about 280,000 ft³/s (7,930 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,240 ft³/s (35.1 m³/s) July 28, gage height, 6.40 ft (1.951 m); minimum daily, 0.38 ft³/s (0.011 m³/s) Oct. 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	63	95	36	45	280	177	104	75	80	271	131
2	.38	64	65	38	45	280	182	159	54	293	250	142
3	3.2	66	60	38	45	250	183	143	43	263	222	140
4	6.0	66	64	38	45	260	180	129	35	299	174	135
5	2.0	68	68	38	45	280	177	123	29	336	144	147
6	5.0	69	65	40	42	280	169	115	24	286	230	188
7	15	66	60	40	45	275	166	105	20	217	370	197
8	18	68	50	42	50	276	165	100	36	173	422	209
9	18	69	45	42	65	225	160	103	73	157	431	189
10	14	70	47	40	80	208	162	120	89	140	401	186
11	15	75	52	40	100	197	181	110	70	127	416	180
12	15	78	60	35	130	190	176	114	51	106	402	169
13	15	81	70	35	190	186	172	106	38	115	392	133
14	18	80	75	35	300	181	166	104	192	156	420	111
15	24	83	80	40	270	177	157	96	138	173	339	89
16	25	85	85	40	180	169	152	81	99	307	280	70
17	25	85	85	45	165	170	144	53	37	287	231	55
18	26	86	85	45	150	174	135	49	137	229	216	52
19	25	82	87	50	155	182	128	62	144	274	205	61
20	26	80	90	50	160	174	126	50	111	277	198	52
21	26	39	90	55	165	208	116	43	76	156	186	44
22	41	50	95	60	175	310	108	43	80	185	175	46
23	57	90	95	55	190	332	106	42	188	205	167	48
24	59	100	95	50	210	283	101	37	100	248	224	47
25	61	120	100	50	210	246	211	36	207	316	308	54
26	61	110	100	50	225	223	205	35	112	263	944	47
27	62	100	110	50	225	207	158	35	114	238	555	41
28	61	100	110	50	250	196	145	31	110	761	293	41
29	61	100	50	50	---	191	115	28	62	621	202	49
30	60	100	35	50	---	179	103	69	56	323	134	40
31	63	---	35	50	---	177	---	96	---	328	110	---
TOTAL	909.38	2353	2303	1377	3937	6966	4626	2511	2600	7939	9310	3089
MEAN	29.3	78.4	74.3	44.4	141	225	154	81.0	86.7	256	300	103
MAX	63	120	110	60	300	332	211	159	207	761	944	209
MIN	.38	39	35	35	42	169	101	28	20	80	110	40
AC-FT	1800	4670	4570	2730	7810	13820	9180	4980	5160	15750	18470	6130

CAL YR 1978 TOTAL 62108.66 MEAN 170 MAX 1420 MIN .07 AC-FT 123200
WTR YR 1979 TOTAL 47920.38 MEAN 131 MAX 944 MIN .38 AC-FT 95050

KANSAS RIVER BASIN

06844000 MUDDY CREEK AT ARAPAHOE, NE

LOCATION.--Lat 40°18'20", long 99°58'40", in NW1/4NW1/4 sec.22, T.4 N., R.23 W., Furnas County, Hydrologic Unit 10250009, on left bank 10 ft (3 m) upstream from bridge on U.S. Highways 6 and 34, 0.2 mi (0.3 km) west of Arapahoe, and 1.5 mi (2.4 km) upstream from mouth.

DRAINAGE AREA.--246 mi² (637 km²).

PERIOD OF RECORD.--December 1950 to September 1972, and October 1977 to current year.

REVISED RECORDS.--WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,143.92 ft (653.467 m), National Geodetic Vertical Datum of 1929. December 1950 to Jan. 11, 1951, nonrecording gage, and Jan. 12, 1951, to Sept. 30, 1972, recording gage at site on left bank 20 ft (6 m) downstream from bridge at present datum.

REMARKS.--Records good except those for winter period, which are poor. Natural flow affected by irrigation development above station and return flow from irrigated areas.

AVERAGE DISCHARGE.--23 years (1951-72, 1978-79), 15.3 ft³/s (0.433 m³/s), 11,080 acre-ft/yr (13,700 m³/yr); median of yearly mean discharges, 11 ft³/s (0.312 m³/s), 8,000 acre-ft/yr (9.86 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,280 ft³/s (206 m³/s) June 16, 1957, gage height, 24.62 ft (7.504 m); no flow Aug. 26 to Sept. 2, 1953, July 23, 29, Aug. 4, 1955.

EXTREMES OUTSIDE PERIOD OF RECORD.--A stage of 31 ft (9.4 m) occurred June 22, 1947, discharge not determined.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,850 ft³/s (52.4 m³/s) July 28 at 2045, gage height, 17.50 ft (5.334 m), no other peak above base of 750 ft³/s (21.2 m³/s); minimum daily, 3.6 ft³/s (0.10 m³/s) Jan. 6-14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	CCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.0	6.1	7.1	5.0	4.5	32	8.0	8.2	7.7	101	17	8.5
2	4.9	6.1	7.4	4.5	4.6	27	8.2	122	7.2	21	14	8.8
3	4.9	6.5	6.2	4.5	4.8	18	8.2	50	6.8	13	13	9.0
4	4.9	6.3	6.2	4.0	5.0	23	8.2	9.0	6.2	13	12	9.5
5	4.8	6.3	6.2	4.0	5.2	24	7.8	8.2	6.0	36	11	12
6	4.8	6.0	6.2	3.6	5.4	24	7.7	7.8	6.0	76	12	14
7	4.9	6.1	6.6	3.6	5.5	20	7.7	7.6	5.5	34	12	11
8	5.0	6.3	5.9	3.6	5.5	19	7.7	7.4	6.2	16	11	10
9	5.0	6.2	5.7	3.6	5.6	18	7.7	7.4	9.1	11	11	10
10	5.1	6.3	5.7	3.6	6.0	15	7.6	7.4	9.5	9.8	14	9.9
11	4.8	6.0	5.5	3.6	7.0	14	8.5	7.4	8.0	9.2	15	8.9
12	4.8	6.3	5.6	3.6	8.0	14	8.4	7.4	7.0	8.8	12	8.9
13	4.7	6.2	5.9	3.6	9.0	13	8.1	7.4	6.2	7.7	11	8.1
14	5.0	6.2	6.0	3.6	10	12	7.7	7.4	5.7	7.3	97	7.6
15	5.1	6.4	6.3	3.8	11	11	7.5	7.3	6.8	7.0	102	7.4
16	5.2	6.3	6.2	4.3	8.0	11	7.5	7.3	8.2	6.9	22	7.3
17	5.5	6.3	6.2	4.8	9.0	11	7.3	8.6	10	17	15	6.7
18	5.7	6.5	6.3	5.2	10	11	7.3	44	9.9	19	26	6.5
19	5.7	6.3	6.5	5.2	12	12	8.9	26	6.0	13	140	6.7
20	5.7	6.2	6.5	5.4	15	11	12	12	6.7	11	35	6.2
21	5.7	7.1	6.8	5.5	17	12	7.2	9.4	5.6	8.4	97	6.1
22	6.3	7.1	6.9	5.4	19	15	7.1	8.0	5.2	6.9	128	6.3
23	7.2	7.4	6.9	5.2	25	14	7.1	7.2	7.3	6.4	35	6.6
24	7.0	7.5	6.6	5.2	30	12	7.0	7.0	27	8.5	21	6.3
25	6.4	7.8	6.5	5.2	30	10	272	6.9	16	93	15	6.1
26	6.4	8.9	6.6	4.8	31	9.8	35	6.8	11	62	19	5.2
27	6.2	8.3	6.8	4.6	32	9.2	8.5	7.0	8.6	32	16	4.9
28	6.0	7.6	7.1	4.4	33	8.8	8.0	7.0	20	745	13	4.9
29	6.1	7.8	7.0	4.4	---	8.5	8.0	7.0	12	482	10	5.1
30	6.2	7.4	6.4	4.4	---	8.2	8.0	8.5	142	44	9.6	5.2
31	6.3	---	5.8	4.4	---	8.0	---	8.4	---	22	9.1	---
TOTAL	171.3	201.8	197.6	136.6	368.1	455.5	529.9	453.0	399.4	1947.9	974.7	233.7
MEAN	5.53	6.73	6.37	4.41	13.1	14.7	17.7	14.6	13.3	62.8	31.4	7.79
MAX	7.2	8.9	7.4	5.5	33	32	272	122	142	745	140	14
MIN	4.7	6.0	5.5	3.6	4.5	8.0	7.0	6.8	5.2	6.4	9.1	4.9
AC-FT	340	400	392	271	730	903	1050	899	792	3860	1930	464

CAL YR 1978 TOTAL 2944.2 MEAN 8.07 MAX 150 MIN 2.8 AC-FT 5840
WTR YR 1979 TOTAL 6069.5 MEAN 16.6 MAX 745 MIN 3.6 AC-FT 12040

06844210 TURKEY CREEK AT EDISON, NE

LOCATION.--Lat 40°16'15", long 99°44'00", in the center of sec.31, T.4 N., R.21 W., Furnas County, Hydrologic Unit 10250009, on left bank 10 ft (3 m) downstream from bridge on State Highway 136, 2 mi (3 km) east of Edison and 5 mi (8 km) upstream from mouth.

PERIOD OF RECORD.--October 1977 to current year.

GAGE.--Water-stage recorder.

REMARKS.--Records good except those for winter period, which are poor. Natural flow affected by pump irrigation development above station and by return flow from irrigated areas.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 430 ft³/s (12.2 m³/s) July 27, 1979, gage height, 9.76 ft (2.975 m); minimum daily, 0.74 ft³/s (0.021 m³/s) Sept. 9, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 430 ft³/s (12.2 m³/s) July 27, gage height, 9.76 ft (2.975 m); minimum daily, 0.82 ft³/s (0.023 m³/s) Oct. 4, 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.92	1.8	3.0	1.8	1.2	9.5	5.0	8.3	5.0	4.7	6.5	3.4
2	.87	1.9	1.8	1.6	1.2	7.0	5.0	45	4.5	5.5	6.0	3.0
3	.92	1.9	1.5	1.6	1.4	8.0	5.2	46	4.3	4.7	5.8	3.0
4	.82	2.0	1.6	1.2	1.4	8.5	4.9	14	4.3	5.0	5.9	2.9
5	.82	2.0	1.6	1.2	2.0	11	4.9	7.3	4.2	5.1	5.4	2.9
6	.87	1.9	1.5	1.2	2.4	7.0	4.7	6.3	4.0	5.9	5.4	3.1
7	.92	2.0	1.5	1.0	2.4	6.5	4.7	6.2	3.9	5.8	4.3	3.3
8	.92	2.1	1.4	1.0	2.4	6.5	4.9	5.6	4.2	5.3	5.1	3.2
9	1.1	2.1	1.6	1.1	2.8	6.0	5.0	5.5	6.2	4.9	6.2	3.4
10	1.1	2.1	2.0	1.2	3.0	6.0	4.6	9.1	6.7	4.9	6.0	2.8
11	1.1	2.2	2.7	1.2	3.0	5.5	5.7	11	5.8	4.8	5.4	2.5
12	1.1	2.2	2.4	1.2	3.0	5.5	6.2	6.3	4.6	4.8	5.3	2.4
13	1.0	2.3	2.2	1.0	3.0	5.0	5.5	5.6	4.3	4.9	4.5	2.6
14	1.1	2.3	2.2	1.0	5.6	5.0	4.9	5.3	4.2	5.1	21	2.5
15	1.1	2.3	2.3	1.0	9.0	5.5	4.9	5.5	4.0	7.0	36	2.5
16	1.1	2.3	2.4	1.0	7.5	6.0	4.9	5.1	3.9	6.7	7.5	2.3
17	1.3	2.3	2.6	1.2	5.0	6.2	4.7	5.1	3.9	6.0	5.6	2.3
18	1.4	2.3	2.7	1.2	6.5	7.3	4.7	12	4.0	46	4.8	2.3
19	1.4	2.2	2.6	1.2	9.0	7.0	4.7	13	4.0	11	4.3	2.3
20	1.4	2.2	2.6	1.4	10	6.5	18	5.8	4.4	5.0	4.0	2.2
21	1.5	2.2	2.7	1.6	10	7.2	21	5.3	4.3	4.1	7.5	2.3
22	1.5	2.2	2.8	1.8	10	10	9.0	5.1	4.0	3.6	5.3	2.3
23	1.8	2.6	2.8	2.0	12	10	4.0	5.0	8.3	3.7	4.2	2.4
24	2.0	2.6	3.0	2.1	13	7.3	3.0	4.8	9.1	4.1	3.6	2.4
25	2.1	3.0	2.6	1.6	14	5.5	100	4.8	6.0	9.1	4.2	2.3
26	1.9	3.5	2.7	1.4	12	5.5	57	4.8	6.5	12	8.5	2.3
27	1.9	3.3	2.8	1.2	10	5.2	20	4.8	5.8	169	5.4	2.5
28	1.8	3.0	2.8	1.2	10	5.2	8.3	4.6	6.4	135	4.2	2.4
29	1.8	2.8	2.5	1.2	---	5.5	6.5	4.5	7.0	38	4.2	2.0
30	1.8	2.8	2.0	1.2	---	5.4	6.0	5.0	6.2	18	3.6	2.0
31	1.8	---	1.8	1.0	---	5.0	---	5.8	---	8.4	3.4	---
TOTAL	41.16	70.4	70.7	40.6	172.8	207.3	347.9	282.5	154.0	558.1	209.1	77.8
MEAN	1.33	2.35	2.28	1.31	6.17	6.69	11.6	9.11	5.13	18.0	6.75	2.59
MAX	2.1	3.5	3.0	2.1	14	11	100	46	9.1	169	36	3.4
MIN	.82	1.8	1.4	1.0	1.2	5.0	3.0	4.5	3.9	3.6	3.4	2.0
AC-FT	82	140	140	81	343	411	690	560	305	1110	415	154

CAL YR 1978 TOTAL 1338.61 MEAN 3.67 MAX 63 MIN .74 AC-FT 2660
WTR YR 1979 TOTAL 2232.36 MEAN 6.12 MAX 169 MIN .82 AC-FT 4430

06844500 REPUBLICAN RIVER NEAR ORLEANS, NE

LOCATION.--Lat 40°07'53", long 99°30'08", in NE1/4NE1/4 sec.19, T.2 N., R.19 W., Harlan County, Hydrologic Unit 10250009, on right bank 18 ft (5 m) downstream from bridge on State Highway 89, 200 ft (61 m) downstream from Burlington Northern Inc. bridge, 2 mi (3 km) west of Orleans, 2.8 mi (4.5 km) upstream from Sappa Creek, and 23 mi (37 km) upstream from Harlan County Dam.

DRAINAGE AREA.--15,640 mi² (40,500 km²), approximately, of which about 8,910 mi² (23,100 km²) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1947 to current year.

REVISED RECORDS.-- WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,972.57 ft (601.239 m) National Geodetic Vertical Datum of 1929. Prior to June 2, 1948, nonrecording gage at present site and datum.

REMARKS.--Records fair except those for winter period, which are poor. Natural flow affected by irrigation development above station and regulation by upstream reservoirs.

AVERAGE DISCHARGE.--32 years, 312 ft³/s (8.836 m³/s), 226,000 acre-ft/yr (0.279 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 40,600 ft³/s (1,150 m³/s) June 22, 1948, gage height, 11.25 ft (3.429 m), from rating curve extended above 29,000 ft³/s (821 m³/s); maximum gage height, 12.60 ft (3.840 m) Mar. 22, 1960, backwater from ice; no flow at times in 1952-57, 1963, 1978-79.

EXTREMES OUTSIDE PERIOD OF RECORD.-- Maximum flood since at least 1826 occurred June 1, 1935. Flood of June 23, 1947, reached a stage of 14.00 ft (4.267 m), from floodmark (discharge not determined).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,440 ft³/s (69.1 m³/s) July 29, gage height, 7.36 ft (2.243 m); no flow Oct. 1-28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	17	60	20	32	320	259	199	108	121	378	151
2	.00	19	55	18	32	320	256	244	116	189	300	127
3	.00	21	50	18	32	270	249	387	116	119	242	119
4	.00	22	45	18	32	225	246	332	104	174	205	113
5	.00	22	50	18	32	250	236	250	94	190	162	102
6	.00	23	45	19	32	300	228	220	89	236	136	90
7	.00	25	40	19	32	400	231	202	80	314	112	79
8	.00	27	35	19	35	500	223	188	73	243	94	78
9	.00	30	30	19	35	450	219	179	87	201	91	76
10	.00	30	30	19	40	400	221	194	100	170	91	78
11	.00	30	31	19	55	443	234	215	105	141	85	67
12	.00	33	32	17	80	348	236	206	110	114	70	70
13	.00	38	35	17	125	303	246	187	101	77	66	76
14	.00	40	40	17	175	275	227	180	88	49	86	78
15	.00	41	45	19	150	260	222	173	77	44	166	68
16	.00	44	50	22	150	250	212	167	105	49	309	80
17	.00	46	55	25	165	242	203	157	104	62	198	88
18	.00	49	60	27	180	240	197	169	100	160	149	75
19	.00	38	60	30	190	237	194	244	87	172	130	66
20	.00	33	60	30	190	234	235	187	95	129	208	60
21	.00	35	65	32	200	248	301	160	88	128	181	58
22	.00	38	65	32	220	321	220	146	81	116	152	57
23	.00	46	65	32	240	371	192	135	75	77	208	51
24	.00	50	65	32	260	400	183	127	92	71	126	46
25	.00	56	65	32	280	376	297	122	158	78	93	46
26	.00	59	70	30	300	340	899	116	125	126	119	45
27	.00	62	70	30	300	300	437	109	136	334	372	45
28	.00	60	70	30	320	304	299	105	114	686	640	43
29	1.6	60	55	30	---	292	250	98	134	1990	337	38
30	9.3	60	40	30	---	276	220	101	126	1260	255	37
31	14	---	25	30	---	264	---	102	---	551	193	---
TOTAL	24.90	1154	1563	750	3914	9759	7872	5601	3068	8371	5954	2207
MEAN	.80	38.5	50.4	24.2	140	315	262	181	102	270	192	73.6
MAX	14	62	70	32	320	500	899	387	158	1990	640	151
MIN	.00	17	25	17	32	225	183	98	73	44	66	37
AC-FT	49	2290	3100	1490	7760	19360	15610	11110	6090	16600	11810	4380

CAL YR 1978 TOTAL 47455.85 MEAN 130 MAX 1500 MIN .00 AC-FT 94130
WTR YR 1979 TOTAL 50237.90 MEAN 138 MAX 1990 MIN .00 AC-FT 99650

06844500 REPUBLICAN RIVER NEAR ORLEANS, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water year 1969 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (JTU) (00070)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
NOV										
01...	1130	17	520	8.0	9.0	5	11.4	--	--	--
20...	1000	20	--	7.5	.0	4	13.1	3.0	--	2500
DEC										
18...	1030	72	797	7.8	.0	6	12.1	12	K10000	320
JAN										
15...	0930	35	840	7.5	.0	8	5.4	3.2	2100	4500
FEB										
26...	0915	150	350	7.5	.0	35	10.2	16	2400	8000
MAR										
28...	0900	320	740	8.2	4.0	40	11.9	10	4500	3700
APR										
24...	0900	170	750	8.3	17.5	40	9.8	11	K140000	1600
MAY										
21...	0900	150	720	8.1	14.0	400	9.6	6.2	>60000	1700
JUN										
18...	0900	104	650	8.3	18.0	50	8.3	2.7	K70000	2600
JUL										
16...	0900	50	600	8.4	21.0	35	8.1	5.1	35000	1400
AUG										
08...	1200	97	580	8.4	26.0	80	8.9	--	--	--
28...	0900	750	315	7.6	18.0	800	7.1	18	K260000	20000
SEP										
24...	0845	43	690	8.2	17.0	--	9.6	4.4	310	280

K Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)
NOV										
01...	--	--	--	--	--	--	--	--	--	--
20...	27	524	.71	28.3	1.2	.06	.64	.70	1.9	.18
DEC										
18...	27	516	.70	100	2.1	.05	.37	.42	2.5	.20
JAN										
15...	26	--	.70	48.9	2.0	.11	.45	.56	2.6	.30
FEB										
26...	9.8	243	.33	98.4	1.2	.72	1.9	2.6	3.8	.94
MAR										
28...	27	--	.65	411	1.7	.09	.91	1.0	2.7	.28
APR										
24...	27	504	.69	231	.97	.07	1.0	1.1	2.1	.36
MAY										
21...	25	439	.60	178	.79	.05	1.7	1.7	2.5	.32
JUN										
18...	19	402	.55	113	.01	.01	1.6	1.6	1.6	.38
JUL										
16...	14	--	.54	53.5	.04	.01	.95	.96	1.0	.35
AUG										
08...	--	--	--	--	--	--	--	--	--	--
28...	8.0	201	.27	407	1.3	.59	--	--	--	1.7
SEP										
24...	23	463	.63	53.8	.70	.08	.88	.96	1.7	.30

06844500 PEPUBLICAN RIVER NEAR ORLEANS, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	COLOR (PLAT-INUM-COBALT UNITS) (00080)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)
DEC 18...	1030	--	300	0	78	25	45	1.1	19	300	86
JAN 15...	0930	--	310	0	84	25	50	1.2	6.4	320	87
MAR 28...	0900	--	290	43	81	22	43	1.1	16	250	98
APR 24...	0900	--	270	0	72	23	51	1.3	19	280	92
JUN 18...	0900	--	230	0	59	20	41	1.2	19	230	68
JUL 16...	0900	--	200	0	50	19	41	1.3	19	230	77
SEP 24...	0845	10	290	19	76	24	48	1.2	18	270	91

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P) (00666)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)
DEC 18...	.7	42	513	2.2	.20	9	200	160	<1	0
JAN 15...	.7	45	517	--	.01	--	--	160	--	--
MAR 28...	.8	38	476	--	.23	--	--	150	--	--
APR 24...	.9	39	497	.96	.22	13	200	180	--	0
JUN 18...	.6	31	396	.00	.01	8	200	130	--	10
JUL 16...	.6	37	396	--	.12	--	--	200	--	--
SEP 24...	.8	38	485	.73	.21	--	--	150	--	--

DATE	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY SUS-PENDED RECOV-ERABLE (UG/L AS HG) (71895)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
DEC 18...	5	20	2	10	.1	.0	.1	3	0	3
JAN 15...	--	20	--	50	--	--	--	--	--	--
MAR 28...	--	20	--	10	--	--	--	--	--	--
APR 24...	0	10	--	10	.2	.1	.1	3	0	<3
JUN 18...	0	10	--	10	.1	.0	.1	2	0	10
JUL 16...	--	20	--	50	--	--	--	--	--	--
SEP 24...	--	<10	--	10	--	--	--	--	--	--

06846500 BEAVER CREEK AT CEDAR BLUFFS, KS

LOCATION.--Lat 39°59'06", long 100°33'35", in NW1/4NE1/4 sec.10, T.1 S., R.29 W., Decatur County, Hydrologic Unit 10250014, on right bank at downstream side of bridge on U.S. Highway 83, 0.2 mi (0.3 km) north of Cedar Bluffs, 1.0 mi (1.6 km) south of Kansas-Nebraska State line, and at mi 107.4 (172.8 km).

DRAINAGE AREA.--1,618 mi^2 (4,191 km^2), of which 294 mi^2 (761 km^2) is probably noncontributing.

PERIOD OF RECORD.--October 1945 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1510: 1947, 1950-51.

GAGE.--Water-stage recorder. Datum of gage is 2,520.33 ft (768.197 m) National Geodetic Vertical Datum of 1929. Prior to Aug. 19, 1971, at site 0.1 mi (0.2 km) upstream at same datum. Aug. 19, 1971, to July 12, 1972, at site 0.8 mi (1.3 km) downstream at datum 5.00 ft (1.524 m) lower.

REMARKS.--Records fair.

AVERAGE DISCHARGE.--34 years, 19.4 ft^3/s (0.549 m^3/s), 14,060 acre-ft/yr (17.3 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,940 ft^3/s (225 m^3/s) June 11, 1960, gage height, 18.71 ft (5.703 m); no flow at times in most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in July 1944 reached a stage of 18.16 ft (5.535 m), from floodmark.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 406 ft^3/s (11.5 m^3/s) July 18, gage height, 9.21 ft (2.807 m), no other peak above base of 300 ft^3/s (8.50 m^3/s); no flow most days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.20	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	16	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	234	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	61	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	6.3	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.86	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.09	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	12	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	4.0	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.46	.10	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.06	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	.00	.00	.00	.00	.00	.00	.00	.00	.00	334.97	.10	.00
MEAN	.000	.000	.000	.000	.000	.000	.000	.000	.000	10.8	.003	.000
MAX	.00	.00	.00	.00	.00	.00	.00	.00	.00	234	.10	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	.00	.00	.00	.00	664	.2	.00

CAL YR 1978 TOTAL 318.30 MEAN .87 MAX 106 MIN .00 AC-FT 631
WTR YR 1979 TOTAL 335.07 MEAN .92 MAX 234 MIN .00 AC-FT 665

06847000 BEAVER CREEK NEAR BEAVER CITY, NE

LOCATION.--Lat 40°07'12", long 99°53'35", in SW1/4SW1/4 sec.23, T.2 N., R.23 W., Furnas County, Hydrologic Unit 10250014, on left bank 400 ft (122 m) downstream from bridge on U.S. Highway 283, 3.5 mi (5.6 km) west of Beaver City, and at mi 24.7 (39.7 km).

DRAINAGE AREA.--1,950 mi² (5,050 km²), approximately, of which about 1,650 mi² (4,270 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--October 1936 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1340: 1937-38(M), 1939, 1940-41(M), 1943(M). WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,162.96 ft (659.270 m) National Geodetic Vertical Datum of 1929. Prior to Aug. 13, 1947, nonrecording gages and Aug. 13, 1947, to Nov. 14, 1957, water-stage recorder, at site 400 ft (120 m) upstream at datum 2.0 ft (0.61 m) higher. Nov. 15, 1957, to Sept. 22, 1958, at site 3.6 mi (5.8 km) upstream at different datum.

REMARKS.--Records good except those for winter period, which are poor.

AVERAGE DISCHARGE.--43 years, 25.4 ft³/s (0.719 m³/s), 18,400 acre-ft/yr (22.7 hm³/yr); median of yearly mean discharges, 19 ft³/s (0.538 m³/s), 13,800 acre-ft/yr (17.0 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,800 ft³/s (108 m³/s) July 19, 1944, gage height, 13.8 ft (4.21 m), from floodmark, site and datum then in use; no flow at times in 1937-40, 1946, 1953-57, 1959, 1969-74, 1976, 1978-79.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 330 ft³/s (9.35 m³/s) Aug. 27, gage height, 7.80 ft (2.377 m), no peak above base of 400 ft³/s (11.3 m³/s); no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.05	.10	.06	.00	.00	.54	.55	.48	.06	2.7	.99
2	.00	.06	.07	.07	.00	.00	.55	.74	.31	.08	1.0	1.4
3	.00	.04	.07	.08	.00	.00	.55	.85	.29	.07	.46	.63
4	.00	.04	.08	.08	.00	.00	.54	.61	.23	.10	.24	.35
5	.00	.05	.07	.08	.00	.00	.54	.58	.20	.11	.12	.21
6	.00	.05	.05	.08	.00	.10	.47	.53	.18	.16	.08	.16
7	.00	.04	.04	.08	.00	.30	.34	.50	.18	.13	.08	.11
8	.00	.04	.03	.08	.00	.70	.39	.42	.35	.12	.06	.14
9	.00	.06	.04	.08	.00	1.8	.36	.51	.65	.13	.04	.15
10	.00	.03	.06	.08	.01	5.0	.35	.68	.62	.13	.06	.16
11	.00	.01	.08	.08	.01	14	.51	.73	.57	.10	.06	.11
12	.00	.05	.09	.07	.01	21	.50	.63	.43	.08	.00	.11
13	.00	.06	.10	.06	.02	14	.50	.53	.27	.04	.00	.11
14	.00	.06	.11	.04	.02	7.7	.47	.47	.19	.02	.08	.11
15	.00	.06	.13	.03	.01	2.9	.39	.46	.17	.02	.09	.10
16	.00	.07	.15	.03	.00	1.0	.47	.40	.15	.10	.13	.09
17	.00	.08	.17	.04	.00	.86	.46	.40	.17	.60	.08	.07
18	.00	.07	.20	.04	.00	.74	.35	.36	.17	.55	.07	.07
19	.00	.06	.21	.05	.00	.75	.31	.40	.18	.65	.07	.08
20	.00	.05	.22	.05	.00	.54	25	.72	.13	.31	.07	.04
21	.00	.05	.22	.04	.00	.99	42	.72	.16	.21	.08	.05
22	.00	.07	.23	.02	.00	1.6	6.7	.42	.13	.14	.06	.06
23	.00	.10	.24	.01	.00	1.1	2.2	.37	.31	.15	.02	.05
24	.00	.10	.24	.00	.00	.82	1.2	.31	1.1	.11	.01	.06
25	.00	.16	.22	.00	.00	.55	.87	.34	.64	.12	1.9	.06
26	.00	.15	.18	.00	.00	.52	.78	.32	.28	.12	177	.04
27	.00	.11	.19	.00	.00	.53	.58	.30	.14	.16	185	.04
28	.00	.11	.20	.00	.00	.49	.47	.26	.14	.44	28	.04
29	.03	.09	.16	.00	---	.52	.43	.24	.10	.20	10	.05
30	.02	.10	.12	.00	---	.57	.51	.58	.07	25	3.6	.05
31	.05	---	.08	.00	---	.58	---	1.0	---	9.6	1.5	---
TOTAL	.10	2.07	4.15	1.33	.08	79.66	89.33	15.93	8.99	39.81	412.66	5.69
MEAN	.003	.069	.13	.043	.003	2.57	2.98	.51	.30	1.28	13.3	.19
MAX	.05	.16	.24	.08	.02	21	42	1.0	1.1	25	185	1.4
MIN	.00	.01	.03	.00	.00	.00	.31	.24	.07	.02	.00	.04
AC-FT	.2	4.1	8.2	2.6	.2	158	177	32	18	79	819	11

CAL YR 1978 TOTAL 161.05 MEAN .44 MAX 13 MIN .00 AC-FT 319
WTR YR 1979 TOTAL 659.80 MEAN 1.81 MAX 185 MIN .00 AC-FT 1310

06847500 SAPPA CREEK NEAR STAMFORD, NE

LOCATION.--Lat 40°07'53", long 99°33'15", in NW1/4NW1/4 sec.23, T.2 N., R.20 W., Harlan County, Hydrologic Unit 10250011, on left bank 40 ft (12 m) south of Burlington Northern Inc. track, 500 ft (152 m) downstream from bridge on county highway, 2 mi (3 km) east of Stamford, and 5.5 mi (8.8 km) upstream from mouth.

DRAINAGE AREA.--3,740 mi² (9,690 km²), approximately, of which about 3,280 mi² (8,500 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--October 1945 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1919: 1960. WSP 2119: Drainage area. WDR NE-71-1: Calendar year totals.

GAGE.--Water-stage recorder. Datum of gage is 1,981.31 ft (603.903 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records poor. Natural flow affected by irrigation development above station.

AVERAGE DISCHARGE.--34 years, 62.8 ft³/s (1.778 m³/s), 45,500 acre-ft/yr (56.1 hm³/yr); median of yearly mean discharges, 38 ft³/s (1.076 m³/s), 27,500 acre-ft/yr (33.9 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 43,400 ft³/s (1,230 m³/s) June 24, 1966, gage height, 22.13 ft (6.745 m), from floodmark, from contracted opening and flow-over-road measurement of peak flow; no flow at times in many years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 162 ft³/s (4.59 m³/s) July 28, gage height, 9.18 ft (2.798 m), no peak above base of 1,000 ft³/s (28.3 m³/s); no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	4.7	.00	.00	.00	.00	23	29
2	.00	.00	.00	.00	.00	2.2	.00	.00	.00	.00	16	21
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	11	16
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	7.4	12
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	4.6	11
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.6	7.8
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.8	4.9
8	.00	.00	.00	.00	.00	.07	.00	.00	.00	.00	1.1	3.1
9	.00	.00	.00	.00	.00	.28	.00	.00	.00	.00	.21	1.6
10	.00	.00	.00	.00	.00	.00	.00	6.6	.00	.00	.00	.29
11	.00	.00	.00	.00	.00	.20	.00	8.9	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	.18	.00	6.3	.00	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	3.9	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	1.3	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	1.6	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.72	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	1.1	.00	.00	.00	.00	4.2	.00	.00
21	.00	.00	.00	.00	6.5	.00	.00	.00	.00	51	.00	.00
22	.00	.00	.00	.00	10	.04	.00	.00	.00	92	.00	.00
23	.00	.00	.00	.00	17	.42	.00	.00	3.9	66	.00	.00
24	.00	.00	.00	.00	23	.27	.00	.00	2.0	107	.00	.00
25	.00	.00	.00	.00	19	.00	.00	.00	.00	92	.00	.00
26	.00	.00	.00	.00	14	1.1	.00	.00	.00	58	.00	.00
27	.00	.00	.00	.00	8.9	.31	.00	.00	.00	73	17	.00
28	.00	.00	.00	.00	6.7	.00	.00	.00	12	116	54	.00
29	.00	.00	.00	.00	---	.00	.00	.00	1.6	72	84	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	83	55	.00
31	.00	---	.00	.00	---	.00	---	.00	---	39	41	---
TOTAL	.00	.00	.00	.00	106.20	9.77	.00	27.00	21.82	853.20	318.71	106.69
MEAN	.000	.000	.000	.000	3.79	.32	.000	.87	.73	27.5	10.3	3.56
MAX	.00	.00	.00	.00	23	4.7	.00	8.9	12	116	84	29
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	211	19	.00	54	43	1690	632	212

CAL YR 1978 TOTAL 1018.28 MEAN 2.79 MAX 118 MIN .00 AC-FT 2020
WTR YR 1979 TOTAL 1443.39 MEAN 3.95 MAX 116 MIN .00 AC-FT 2860

06848500 PRAIRIE DOG CREEK NEAR WOODRUFF, KS

LOCATION.--Lat 39°59'09", long 99°28'39", in NW1/4NW1/4 sec.9, T.1 S., R.19 W., Phillips County, Hydrologic Unit 10250015, on left bank at downstream side of bridge on U.S. Highway 383, 1 mi (2 km) south of Kansas-Nebraska State line, 2.5 mi (4.0 km) west of Woodruff, and at mi 26.5 (42.6 km).

DRAINAGE AREA.--1,007 mi^2 (2,608 km^2).

PERIOD OF RECORD.--October 1928 to September 1932, October 1944 to current year. Monthly discharge only for some periods, published in WSP 1310.

GAGE.--Water-stage recorder. Datum of gage is 2,016.20 ft (614.538 m) National Geodetic Vertical Datum of 1929. See WSP 1919 for history of changes prior to Oct. 7, 1955.

REMARKS.--Records fair except those for winter periods and period of no gage-height record, July 17 to Sept. 10, which are poor. Flow regulated to some extent since 1964 by Norton Reservoir 48.4 mi (77.9 km) upstream (see sta 06847950) and by irrigation development above station.

AVERAGE DISCHARGE.--39 years (water years 1929-32, 1945-79), 38.0 ft^3/s (1.076 m^3/s), 27,530 acre-ft/yr (33.9 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,000 ft^3/s (425 m^3/s) June 23, 1947, gage height, 21.04 ft (6.413 m), site and datum then in use, from rating curve extended above 6,500 ft^3/s (184 m^3/s) on basis of contracted-opening measurement of 11,300 ft^3/s (320 m^3/s); no flow at times in many years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 624 ft^3/s (17.7 m^3/s) Apr. 19, gage height, 11.63 ft (3.545 m), no other peak above regulated base of 400 ft^3/s (11.3 m^3/s); no flow many days in August and September.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.02	.31	.18	.01	.03	.20	2.6	.98	.64	10	15	.20
2	.02	.24	.18	.01	.03	.30	2.2	1.4	.71	4.0	5.0	.15
3	.02	.16	.20	.01	.03	.80	2.5	1.6	.60	1.5	2.0	.10
4	.02	.16	.17	.01	.03	1.0	2.4	1.8	.51	.80	1.0	.08
5	.02	.20	.17	.01	.03	1.0	2.3	1.9	.44	.72	.50	.06
6	.02	.16	.17	.01	.03	1.5	2.2	1.7	.42	.83	.10	.05
7	.05	.20	.15	.01	.03	2.0	2.1	1.5	.42	.81	.02	.04
8	.08	.20	.16	.01	.03	3.0	2.0	1.8	.40	.75	.00	.03
9	.08	.26	.16	.01	.03	6.0	1.8	19	.57	.48	.00	.02
10	.06	.24	.16	.01	.03	10	1.6	46	.44	.37	.00	.02
11	.05	.22	.16	.01	.04	20	2.1	19	.41	.28	.00	.02
12	.03	.22	.16	.01	.05	28	2.4	12	.56	.21	.00	.02
13	.05	.22	.14	.01	.05	20	2.2	4.7	.79	.18	.00	.10
14	.06	.20	.14	.01	.06	13	2.3	3.0	.82	.17	.00	.05
15	.08	.20	.14	.01	.06	6.7	2.1	2.4	.92	.16	.00	.03
16	.12	.20	.14	.01	.06	7.4	2.3	1.7	.68	.15	.00	.01
17	.15	.18	.13	.02	.06	10	1.9	1.1	.62	.20	.00	.01
18	.14	.20	.14	.03	.06	6.7	1.7	.93	.59	2.0	.00	.01
19	.12	.22	.15	.04	.08	5.3	126	.83	.50	15	.00	.00
20	.13	.22	.14	.05	.08	4.4	81	.77	.40	50	.00	.00
21	.13	.20	.13	.06	.10	4.8	16	.77	.33	20	.00	.00
22	.24	.20	.14	.07	.15	19	5.1	.72	.30	5.0	.00	.00
23	.38	.18	.12	.07	.15	21	2.3	.70	.40	1.0	.00	.00
24	.31	.16	.11	.06	.15	19	1.7	.62	.59	.70	.00	.00
25	.22	.15	.13	.06	.15	22	1.5	.63	3.0	.50	.00	.00
26	.26	.13	.12	.05	.20	21	1.3	.74	2.0	.80	.02	.00
27	.25	.16	.09	.05	.20	15	1.1	.62	1.0	3.0	.05	.00
28	.24	.18	.09	.05	.20	9.9	1.1	.59	5.0	30	.10	.00
29	.24	.18	.08	.04	---	5.3	.93	.56	10	60	.40	.00
30	.26	.17	.05	.03	---	3.8	.96	.69	20	80	.50	.00
31	.30	---	.03	.03	---	3.0	---	.64	---	30	.30	---
TOTAL	4.15	5.92	4.23	.87	2.20	291.10	277.69	131.39	54.06	319.61	24.99	1.00
MEAN	.13	.20	.14	.028	.079	9.39	9.26	4.24	1.80	10.3	.81	.033
MAX	.38	.31	.20	.07	.20	28	126	46	20	80	15	.20
MIN	.02	.13	.03	.01	.03	.20	.93	.56	.30	.15	.00	.00
AC-FT	8.2	12	8.4	1.7	4.4	577	551	261	107	634	50	2.0

CAL YR 1978 TOTAL 3369.37 MEAN 9.23 MAX 354 MIN .00 AC-FT 6680
WTR YR 1979 TOTAL 1117.21 MEAN 3.06 MAX 126 MIN .00 AC-FT 2220

06849000 HARLAN COUNTY LAKE NEAR REPUBLICAN CITY, NE

LOCATION.--Lat 40°04'16", long 99°12'30", in sec.11, T.1 N., R.17 W., Harlan County, Hydrologic Unit 10250009, at left end of spillway on upstream side of Harlan County Dam on Republican River, 2 mi (3 km) southeast of Republican City and 8 mi (13 km) southeast of Alma.

DRAINAGE AREA.--20,750 mi² (53,700 km²), approximately, of which about 13,530 mi² (35,000 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--November 1952 to current year. Prior to October 1965 published as Harlan County Reservoir near Republican City.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS (REVISED).--Reservoir is formed by earthfill dam with gravity-type concrete spillway section; storage began Nov. 14, 1952. Capacity, 319,600 acre-ft (0.394 km³) between elevations 1,885.0 ft (575 m), sill of outlet gates, and 1,946.0 ft (593 m), top of storage pool. Top of flood-control pool at elevation 1,973.5 ft (602 m), capacity, 828,800 acre-ft (1.02 km³). Top of superstorage flood-control pool at elevation 1,975.5 ft (602 m), capacity, 875,600 acre-ft (1.08 km³). Figures given herein represent total contents. Water used for irrigation in the Bostwick irrigation project.

COOPERATION.--Capacity table furnished by Corps of Engineers (revised Oct. 1, 1974).

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 497,700 acre-ft (0.614 km³) Apr. 6, 1960, elevation, 1,955.67 ft (596.088 m); minimum since operation of reservoir began, 110,300 acre-ft (0.136 km³) Oct. 22 to Nov. 6, 1953, elevation, 1,922.00 ft (585.826 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 254,000 acre-ft (0.313 km³) July 9, elevation, 1,940.80 ft (591.556 m); minimum, 181,900 acre-ft (0.224 km³) Nov. 22, elevation, 1,933.83 ft (589.431 m).

Capacity table (elevation, in feet,
and contents, in acre-feet)

1,930	150,000	1,945	306,400
1,935	192,800	1,940	244,700

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	186400	182700	183500	185300	186900	194600	218400	233700	245200	251200	249300	228900
2	186300	182700	183900	185300	187000	195700	218700	235300	245200	251400	248500	229100
3	186100	182700	183800	185300	187000	196700	219100	236100	245300	251800	247300	229200
4	186000	182600	183700	185300	187000	197000	219700	236800	245300	252200	245900	229200
5	185600	182400	183600	185300	187000	197600	219800	237300	245300	252500	244600	229200
6	185500	182500	183600	185300	187100	198400	220100	237700	245300	252800	243100	229100
7	185100	182400	183600	185400	187100	199300	220700	237900	245300	253400	241500	228900
8	185000	182400	183600	185400	187100	200200	220900	238500	245400	253800	239900	229300
9	185000	182400	183600	185400	187100	201300	221200	239800	246100	254000	238200	229300
10	184800	182400	183600	185400	187200	202100	221700	240800	246000	253800	236800	229200
11	184700	182100	183600	185400	187200	203100	222800	241300	246100	253300	234700	229100
12	184600	182100	183800	185800	187200	203700	223400	241800	246300	252900	232800	229200
13	184400	182100	183800	185800	187300	204300	223600	242000	246500	252200	230900	229100
14	184200	182100	183900	185800	187300	204700	224000	242300	246500	251100	230800	229100
15	184100	182100	183900	185800	187300	205100	224200	242400	246500	250800	229900	229100
16	183600	182200	183900	185900	187300	205600	224600	242800	246600	249300	229500	229100
17	183600	182200	184000	185900	187300	206100	225000	242900	246700	249200	228900	228900
18	183500	182100	184100	186200	187400	207400	225500	243000	246900	249300	228500	228400
19	183400	182000	184100	186200	187600	207600	226600	243600	246800	249700	228500	228400
20	183300	182000	184200	186200	188100	208100	227600	243700	246700	249800	227700	228300
21	183200	182000	184300	186200	188600	210800	228300	243900	246500	249700	227600	228300
22	183800	182100	184300	186200	189200	212300	228800	244200	246600	249300	226900	228000
23	183600	182100	184400	186200	189800	212800	229100	244200	246900	249200	226000	228000
24	183600	182100	184500	186200	190500	213400	229300	244300	249200	248800	225300	227900
25	183500	182600	184600	186500	191400	214100	229700	244300	249400	247700	225300	227900
26	183400	183000	184600	186500	192300	214700	231400	244400	249400	246700	225600	227600
27	183200	183000	184800	186600	193200	215400	232300	244500	249900	245900	225500	227600
28	183100	183100	185000	186600	193800	216000	232900	244500	251100	245900	227000	227500
29	183000	183200	185000	186600	---	216600	233000	244700	251100	248200	227700	227400
30	182700	183400	185100	186800	---	216900	233200	245100	251100	249900	228400	227300
31	182700	---	185300	186800	---	217500	---	245100	---	250000	228600	---
MAX	186400	183400	185300	186800	193800	217500	233200	245100	251100	254000	249300	229300
MIN	182700	182000	183500	185300	186900	194600	218400	233700	245200	245900	225300	227300
‡	1933.92	1933.99	1934.20	1934.36	1935.10	1937.48	1938.98	1940.03	1940.55	1940.46	1938.55	1938.42
‡	-4000	+700	+1900	+1500	+7000	+23700	+15700	+11900	+6000	-1100	-21400	-1300

CAL YR 1978 MAX 288700 MIN 182000 -27400
WTR YR 1979 MAX 254000 MIN 182000 +40600

‡ Elevation, in feet, at end of month.
‡ Change in contents, in acre-feet.

06849500 REPUBLICAN RIVER BELOW HARLAN COUNTY DAM, NE

LOCATION.--Lat 40°04'45", long 99°10'05", in SW1/4 sec.6, T.1 N., R.16 W., Franklin County, Hydrologic Unit 10250016, on left bank 1.4 mi (2.3 km) west of Naponee, 1.4 mi (2.3 km) upstream from Turkey Creek, and 2.8 mi (4.5 km) downstream from Harlan County Dam.

DRAINAGE AREA.--20,760 mi^2 (53,800 km^2), approximately, of which about 13,550 mi^2 (35,100 km^2) contributes directly to surface runoff.

PERIOD OF RECORD.--December 1952 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,863.38 ft (567.958 m) National Geodetic Vertical Datum of 1929 (Corps of Engineers bench mark).

REMARKS.--Records fair except those for winter period, which are poor. Flow completely regulated by Harlan County Lake (station 06849000) and partially regulated by six upstream reservoirs.

AVERAGE DISCHARGE.--26 years (1953-79), 277 ft^3/s (7.845 m^3/s), 200,700 acre-ft/yr (0.247 km^3/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,320 ft^3/s (122 m^3/s) June 25, 1957, gage height, 8.65 ft (2.637 m); minimum daily, 1.5 ft^3/s (0.042 m^3/s) Apr. 28, 29, 1957.

EXTREMES OUTSIDE PERIOD OF RECORD.-- Maximum flood since at least 1826 occurred June 1, 1935, discharge, about 260,000 ft^3/s (7,360 m^3/s), from slope-area measurement near Bloomington.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 765 ft^3/s (21.7 m^3/s) June 23, gage height, 3.50 ft (1.067 m); minimum daily, 1.8 ft^3/s (0.051 m^3/s) May 17, 19, June 1-3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	6.1	7.3	6.0	6.2	15	14	6.7	1.8	14	450	53
2	12	6.7	7.4	6.5	6.4	15	12	80	1.8	7.1	485	26
3	12	6.7	11	7.0	6.6	10	12	18	1.8	7.3	450	25
4	11	8.5	12	7.0	6.6	11	12	14	3.7	7.2	445	24
5	11	8.5	10	7.0	6.6	11	11	10	4.3	7.7	445	22
6	12	8.5	7.0	7.0	7.0	12	11	10	3.1	11	475	22
7	13	8.5	5.0	7.0	6.8	12	11	10	4.3	10	465	22
8	13	8.8	4.5	7.5	6.5	12	11	10	4.3	9.5	455	22
9	13	8.6	5.5	7.0	6.8	13	10	14	11	83	526	20
10	12	9.1	6.0	7.0	8.2	13	12	6.0	5.6	174	598	18
11	11	7.9	7.0	7.0	9.6	13	15	4.5	3.1	194	575	16
12	10	8.5	8.5	7.0	9.2	14	12	3.0	6.1	218	627	17
13	10	7.9	8.5	6.5	9.0	14	9.9	3.0	4.3	234	616	16
14	8.5	7.9	9.0	6.5	10	13	9.5	2.5	5.5	344	460	16
15	7.9	7.6	10	6.5	8.8	12	9.5	2.5	6.7	500	311	16
16	7.9	7.3	10	6.5	6.0	11	9.5	2.0	6.9	440	304	11
17	7.3	7.3	9.0	7.0	5.6	11	9.5	1.8	7.3	277	300	11
18	7.3	7.4	8.0	7.0	6.2	15	9.0	2.3	5.5	21	300	11
19	5.5	7.0	7.4	8.0	9.0	13	9.0	1.8	5.5	16	331	13
20	4.9	7.1	5.3	7.5	11	13	9.0	2.2	6.2	16	355	14
21	4.3	7.9	7.3	8.0	13	39	9.0	2.0	7.1	61	343	13
22	4.9	7.9	7.4	9.0	18	199	8.8	2.3	6.2	142	335	11
23	5.5	7.3	7.8	7.5	16	34	8.5	2.0	395	182	335	11
24	5.5	7.3	7.5	8.0	13	17	8.5	2.0	53	310	343	12
25	5.5	9.5	7.0	8.0	13	15	8.0	2.2	22	412	351	12
26	6.1	9.4	7.0	7.6	14	14	8.0	2.2	24	422	470	11
27	4.9	8.5	7.0	7.4	14	12	7.5	2.2	16	417	182	9.9
28	4.9	7.9	7.0	7.0	14	12	7.5	2.0	109	403	132	11
29	4.1	7.9	7.0	6.8	---	10	7.0	2.0	41	385	197	10
30	4.9	7.8	6.0	6.6	---	11	7.0	2.0	19	408	154	11
31	6.7	---	5.5	6.2	---	11	---	2.0	---	417	103	---
TOTAL	259.6	237.3	234.9	220.6	267.1	627	297.7	227.2	791.1	6149.8	11918	506.9
MEAN	8.37	7.91	7.58	7.12	9.54	20.2	9.92	7.33	26.4	198	384	16.9
MAX	13	9.5	12	9.0	18	199	15	80	395	500	627	53
MIN	4.1	6.1	4.5	6.0	5.6	10	7.0	1.8	1.8	7.1	103	9.9
AC-FT	515	471	466	438	530	1240	590	451	1570	12200	23640	1010

CAL YR 1978 TOTAL 36127.1 MEAN 99.0 MAX 856 MIN 2.0 AC-FT 71660
WTR YR 1979 TOTAL 21737.2 MEAN 59.6 MAX 627 MIN 1.8 AC-FT 43120

06851000 CENTER CREEK AT FRANKLIN, NE

LOCATION.--Lat 40°06'12", long 98°58'45", in NW1/4NE1/4 sec.35, T.2 N., R.15 W., Franklin County, Hydrologic Unit 10250016, on right bank at downstream side of bridge on State Highway 136, 1 mi (2 km) northwest of Franklin and 3 mi (5 km) upstream from mouth.

DRAINAGE AREA.--74 mi² (190 km²), approximately, of which about 56 mi² (150 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--April 1948 to September 1956. Annual maximums and occasional low-flow measurements, water years 1961-68. October 1968 to September 1975, October 1977 to current year.

REVISED RECORDS.--WSP 2119: 1963(M), 1965(M), drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,858.34 ft (566.422 m) National Geodetic Vertical Datum of 1929 (Water and Power Resources service, formerly Bureau of Reclamation, bench mark). Prior to Dec. 19, 1952, nonrecording gage at site 1.5 mi (2.4 km) downstream at datum 30.27 ft (9.226 m) lower and Dec. 19, 1952, to Sept. 30, 1956, at present site at datum 0.84 ft (0.256 m) higher. Sept. 7, 1961, to Sept. 30, 1968, crest-stage gage and Oct. 1, 1968, to Sept. 30, 1975, recording gage at present site and datum.

REMARKS.--Records poor. Two small diversions above station for irrigation.

AVERAGE DISCHARGE.--17 years (1948-56, 1968-75, 1978-79) 7.68 ft³/s (0.217 m³/s), 5,560 acre-ft/yr (6.86 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,150 ft³/s (89.2 m³/s) Sept. 20, 1950, gage height, 6.8 ft (2.07 m), from floodmark, site and datum then in use, from rating curve extended above 420 ft³/s (11.9 m³/s) on basis of slope-area measurement of peak flow; no flow at times during 1948-50.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 35 ft³/s (0.99 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Mar. 8	0715	342	9.7	3.24	0.988	June 28	0915	526	14.9	3.85	1.173
Mar. 22	1500	616	17.4	a4.10	1.250	July 15	unknown	512	14.5	a3.80	1.158
Apr. 20	0115	234	6.6	2.93	0.893	July 17	1230	506	14.3	3.78	1.152
Apr. 25	1315	76	2.2	1.95	0.594	Aug. 14	1915	756	21.4	4.38	1.335
Apr. 29	0315	56	1.6	1.81	0.552	Aug. 19	1430	104	2.9	2.27	0.692
May 2	unknown	*1450	41.1	a5.60	1.707	Aug. 26	unknown	470	13.3	a3.69	1.125
May 10	0530	208	5.9	2.82	0.860						

a High-water mark.

Minimum daily discharge, 2.7 cfs Aug. 8, 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.3	6.2	6.6	6.3	6.5	5.6	8.1	40	6.5	7.6	5.0	5.1
2	5.2	6.2	6.5	6.6	6.5	5.9	9.0	730	7.0	7.8	4.1	8.4
3	5.5	6.1	6.4	6.8	6.6	5.7	8.5	55	6.2	7.3	5.2	9.6
4	5.5	6.0	6.6	6.7	6.6	5.5	8.0	30	5.6	7.5	3.6	8.6
5	5.5	6.4	6.8	6.6	6.8	5.2	8.6	9.5	6.3	8.0	3.6	7.5
6	5.5	6.6	6.9	6.2	7.0	7.6	7.3	9.0	6.2	8.0	3.3	6.2
7	5.5	6.6	6.5	5.8	7.1	83	7.8	9.1	6.6	8.5	3.1	6.2
8	6.5	6.4	6.0	5.5	7.2	219	8.3	11	7.0	8.0	2.7	6.4
9	6.2	6.4	6.2	5.0	7.6	123	8.0	29	7.6	7.5	2.8	6.4
10	5.8	6.6	6.4	5.0	6.3	45	8.5	140	6.5	7.0	2.8	6.6
11	5.7	6.6	6.2	4.5	6.7	26	8.3	36	7.3	7.0	2.8	6.6
12	5.4	6.8	6.4	4.0	6.7	12	8.9	7.6	6.7	6.5	3.1	7.2
13	5.4	6.8	6.4	3.5	6.8	10	8.6	7.1	6.9	7.0	2.7	6.5
14	5.4	7.0	6.4	3.6	7.2	8.0	7.8	7.2	6.0	8.0	291	6.6
15	5.4	7.0	6.8	3.7	7.4	7.7	8.0	8.1	6.4	90	185	6.7
16	5.3	7.2	6.8	3.8	6.5	7.5	8.0	7.7	6.5	10	33	6.2
17	5.7	6.4	6.8	4.1	6.0	7.7	8.4	7.9	7.1	215	16	6.5
18	5.8	6.5	6.4	4.7	6.5	8.3	8.5	9.8	6.6	51	9.6	7.2
19	5.9	6.6	6.8	5.8	7.0	7.5	14	9.2	6.1	7.6	54	6.8
20	6.2	6.8	6.8	8.0	7.6	7.8	56	7.9	6.2	6.8	32	6.5
21	6.4	7.1	6.4	8.9	8.5	33	11	7.4	6.4	5.0	16	6.5
22	6.4	7.2	6.4	8.3	8.5	361	7.9	7.8	7.9	6.8	12	6.9
23	6.2	6.7	6.5	8.3	8.0	69	8.9	8.3	16	8.0	21	6.6
24	6.4	7.0	6.5	7.0	7.5	16	9.2	9.3	10	8.0	20	6.2
25	6.2	7.6	6.7	7.0	7.3	11	25	7.1	8.2	7.6	20	6.4
26	6.2	7.2	6.7	7.3	7.2	11	22	7.3	7.1	6.4	150	6.8
27	6.4	7.0	6.6	6.9	6.3	10	12	6.6	8.4	7.2	90	6.9
28	6.2	7.4	6.5	6.5	5.9	8.8	16	6.3	174	6.2	25	7.2
29	6.4	6.8	6.3	6.5	---	7.6	32	7.5	14	5.5	9.4	6.9
30	5.9	7.0	6.0	6.5	---	8.2	18	6.6	7.0	4.3	7.6	6.8
31	6.2	---	6.0	6.5	---	8.0	---	6.1	---	4.6	6.7	---
TOTAL	181.6	202.2	201.3	185.9	195.8	1151.6	380.6	1251.4	390.3	555.7	1043.1	205.0
MEAN	5.86	6.74	6.49	6.00	6.99	37.1	12.7	40.4	13.0	17.9	33.6	6.83
MAX	6.5	7.6	6.9	8.9	8.5	361	56	730	174	215	291	9.6
MIN	5.2	6.0	6.0	3.5	5.9	5.2	7.3	6.1	5.6	4.3	2.7	5.1
AC-FT	360	401	399	369	388	2280	755	2480	774	1100	2070	407

CAL YR 1978 TOTAL 3051.1 MEAN 8.36 MAX 211 MIN 3.0 AC-FT 6050
WTR YR 1979 TOTAL 5944.5 MEAN 16.3 MAX 730 MIN 2.7 AC-FT 11790

06851500 THOMPSON CREEK AT RIVERTON, NE

LOCATION.--Lat 40°05'21", long 98°45'38", in NW1/4NW1/4 sec.2, T.1 N., R.13 W., Franklin County, Hydrologic Unit 10250016, on left bank 8 ft (2 m) downstream from bridge on State Highway 136, at west edge of Riverton, 240 ft (73 m) upstream from Burlington Northern Inc. bridge, and 0.5 mi (0.8 km) upstream from south.

DRAINAGE AREA.--279 mi² (723 km²), of which about 190 mi² (492 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--April 1948 to September 1956, October 1968 to September 1975. Annual maximums, water years 1962-68 and occasional low-flow measurements, water years 1961-68. October 1977 to current year.

REVISED RECORDS.--WRD Nebr. 1972: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,753.38 ft (534.430 m) National Geodetic Vertical Datum of 1929. Apr. 1 to Oct. 1, 1948, nonrecording gage 240 ft (73 m) downstream at datum 2.32 ft (0.707 m) higher. Oct. 1, 1948 to July 11, 1950, water-stage recorder at present site at datum 1.32 ft (0.402 m) higher, July 12, 1950, to Sept. 30, 1956, and Oct. 1, 1968 to Sept. 30, 1975, at present site and datum. Sept. 7, 1961, to Sept. 30, 1968, crest-stage gage at present site and datum.

REMARKS.--Records poor. Natural flow affected by irrigation development above station.

AVERAGE DISCHARGE.--17 years (1948-56, 1968-75, 1978-79), 30.3 ft³/s (0.858 m³/s), 21,950 acre-ft/yr (27.1 hm³/yr); median of yearly mean discharges, 27 ft³/s (0.765 m³/s), 19,600 acre-ft/yr (24.2 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,200 ft³/s (346 m³/s) July 9, 1950, gage height, 13.22 ft (4.029 m), present datum, by slope-area measurement; minimum daily, 8.1 ft³/s (0.23 m³/s) Dec. 19, 1951.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 280 ft³/s (7.93 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Feb. 22	2230	322	9.1	5.09	1.551	May 10	unknown	1540	43.6	a7.62	2.323
Mar. 7	0415	379	10.7	5.33	1.625	July 17	1945	1030	29.2	6.90	2.103
Mar. 22	0930	1150	32.6	7.10	2.164	Aug. 14	2245	290	8.2	4.83	1.472
May 2	1300	*2730	77.3	a8.89	2.710	Aug. 26	2145	963	27.3	6.78	2.067

a High-water mark.

Minimum daily discharge, 12 ft³/s (0.34 m³/s) Aug. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	21	21	17	21	31	27	31	21	23	20	16
2	17	21	21	17	20	30	28	992	21	23	19	16
3	17	21	21	17	19	41	27	703	21	22	18	15
4	17	21	21	17	19	31	27	68	21	90	17	15
5	16	21	21	18	19	27	26	41	20	28	17	15
6	16	21	21	18	19	61	25	29	20	25	15	15
7	16	21	21	19	20	245	25	26	20	33	16	15
8	16	21	23	19	20	257	25	26	20	35	14	16
9	17	21	24	19	20	184	25	31	24	29	14	14
10	17	21	23	19	21	109	25	941	21	23	16	13
11	17	21	21	19	21	59	27	218	21	23	15	14
12	17	21	20	19	21	38	27	55	20	23	12	18
13	18	21	20	20	20	28	26	34	20	22	15	17
14	18	21	19	21	21	25	26	30	20	22	104	17
15	18	21	20	23	21	25	26	28	20	25	145	16
16	18	21	20	20	21	25	26	27	21	25	41	16
17	19	21	20	20	21	25	26	26	21	390	26	16
18	19	21	20	17	24	27	26	26	21	310	19	16
19	19	21	21	18	28	28	26	26	20	76	20	16
20	19	21	22	19	30	26	71	26	20	33	19	16
21	20	21	22	19	36	29	33	25	20	18	22	16
22	20	21	23	19	120	708	26	25	20	17	23	17
23	21	22	23	20	108	162	25	25	21	16	20	17
24	21	22	24	23	55	90	24	24	21	18	19	18
25	21	24	24	21	41	48	29	24	21	30	20	17
26	21	24	24	20	30	36	180	24	21	17	447	17
27	21	23	24	21	35	32	53	23	21	16	241	17
28	21	22	23	23	36	29	33	23	93	19	56	17
29	21	22	21	24	---	27	32	23	74	18	33	17
30	21	22	18	24	---	27	30	23	23	17	18	18
31	21	---	17	23	---	27	---	22	---	18	16	---
TOTAL	577	643	663	613	887	2537	1032	3645	748	1484	1497	483
MEAN	18.6	21.4	21.4	19.8	31.7	81.8	34.4	118	24.9	47.9	48.3	16.1
MAX	21	24	24	24	120	708	180	992	93	390	447	18
MIN	16	21	17	17	19	25	24	22	20	16	12	13
AC-FT	1140	1280	1320	1220	1760	5030	2050	7230	1480	2940	2970	958

CAL YR 1978 TOTAL 10132 MEAN 27.8 MAX 599 MIN 15 AC-FT 20100
WTR YR 1979 TOTAL 14809 MEAN 40.6 MAX 992 MIN 12 AC-FT 29370

06852000 ELM CREEK AT AMBOY, NE

LOCATION.--Lat 40°05'20", long 98°26'07", in NE1/4NW1/4 sec.3, T.1 N., R.10 W., Webster County, Hydrologic Unit 10250016, on left bank at downstream side of bridge on State Highway 136 at east edge of Amboy, 2.5 mi (4.0 km) upstream from mouth, and 4.5 mi (7.2 km) east of Red Cloud.

DRAINAGE AREA.--39.2 mi^2 (101.5 km^2).

PERIOD OF RECORD.--April 1948 to December 1953. Annual maximums, water years 1959, 1961-77 and occasional low flow measurements, water years 1954-77. October 1977 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,659.07 ft (505.685 m) National Geodetic Vertical Datum of 1929. Prior to July 17, 1952, nonrecording gage at upstream side of bridge at datum 7.26 ft (2.213 m) higher, and July 17, 1952, to Jan. 4, 1954, water-stage recorder, present site, at datum 6.26 ft (1.908 m) higher, and Sept. 6, 1961, to Sept. 30, 1977, crest-stage gage at present site and datum.

REMARKS.--Records fair. Natural flow affected by pump irrigation development above station.

AVERAGE DISCHARGE.--7 years (1949-53, 1978-79), 21.6 ft^3/s (0.61 m^3/s), 15.65 acre-ft (19,300 m^3) per year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 6,000 ft^3/s (170 m^3/s) July 4, 1959, gage height, 17.05 ft (5.197 m), present datum; minimum daily, 11 ft^3/s (0.31 m^3/s) Aug. 24, 1949, Aug. 30, 1953, Aug. 8, 1979.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 726 ft^3/s (20.6 m^3/s) July 18, gage height, 12.74 ft (3.883 m); minimum daily, 11 ft^3/s (0.31 m^3/s) Aug. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	14	14	13	14	36	17	17	15	106	14	15
2	13	14	14	13	15	44	18	39	15	70	14	15
3	13	14	14	14	15	258	18	52	16	22	14	15
4	13	14	14	14	15	40	17	20	16	19	14	15
5	13	14	14	14	15	30	17	18	15	31	13	15
6	13	13	14	14	15	69	18	17	15	29	13	136
7	13	13	14	14	15	273	18	17	15	22	12	45
8	13	13	14	14	15	74	18	17	14	19	11	19
9	13	13	14	14	15	32	18	17	16	18	12	16
10	13	13	14	14	15	25	17	140	15	18	14	15
11	13	14	14	14	15	22	17	65	15	18	14	15
12	13	14	15	14	15	19	17	28	15	17	14	16
13	13	14	15	13	15	19	17	23	15	16	16	16
14	14	14	15	14	15	18	17	21	14	16	58	16
15	14	14	15	14	15	17	17	19	14	17	21	15
16	14	14	14	14	15	17	18	18	14	40	17	15
17	14	14	14	14	16	18	18	18	14	175	16	15
18	14	14	14	14	15	19	17	18	15	308	17	14
19	14	14	14	15	15	18	17	17	14	44	18	14
20	14	14	14	15	15	16	17	17	14	22	18	14
21	14	14	14	15	15	20	17	17	15	18	40	14
22	15	14	14	15	42	362	17	17	15	16	70	14
23	15	14	14	15	73	138	17	16	17	15	22	14
24	15	14	14	15	64	29	17	16	14	14	19	14
25	15	15	14	15	39	21	17	16	15	15	45	14
26	15	16	14	15	36	19	17	16	16	14	135	14
27	15	15	14	15	51	18	17	16	15	14	24	14
28	14	14	14	15	61	18	17	16	42	14	19	14
29	14	14	14	15	---	18	17	16	39	14	20	14
30	14	14	14	15	---	17	17	16	18	13	18	14
31	14	---	14	13	---	17	---	16	---	13	15	---
TOTAL	427	419	438	442	681	1741	518	776	502	1187	767	596
MEAN	13.8	14.0	14.1	14.3	24.3	56.2	17.3	25.0	16.7	38.3	24.7	19.9
MAX	15	16	15	15	73	362	18	140	42	308	135	136
MIN	13	13	14	13	14	16	17	16	14	13	11	14
AC-FT	847	831	869	877	1350	3450	1030	1540	996	2350	1520	1180

CAL YR 1978 TOTAL 5856 MEAN 16.0 MAX 95 MIN 12 AC-FT 11620
WTR YR 1979 TOTAL 8494 MEAN 23.3 MAX 362 MIN 11 AC-FT 16850

06852500 COURTLAND CANAL AT NEBRASKA-KANSAS STATE LINE

LOCATION.--Lat 40°00'15", long 98°07'55", in SW1/4SE1/4 sec.32, T.1 N., R.7 W., Nuckolls County, Nebraska, Hydrologic Unit 10250016, on left bank 0.2 mi (0.3 km) upstream from Nebraska-Kansas State line and 3.5 mi (5.6 km) southwest of Superior, NE.

PERIOD OF RECORD.--October 1954 to current year.

GAGE.--Water-stage recorder and concrete Parshall flume. Datum of gage is 1,612.46 ft (491.478 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Canal diverts from Republican River at Courtland diversion dam in sec.7, T.1 N., R.9 W. Water is used for irrigation in Nebraska and Kansas; figures published herein represent that portion which flows into Kansas.

AVERAGE DISCHARGE.--25 years, 76.9 ft³/s (2.178 m³/s), 55,710 acre-ft/yr (68.7 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 781 ft³/s (22.1 m³/s) Sept. 2, 1973, gage height, 5.05 ft (1.539 m); no flow for many days in each year.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 301 ft³/s (8.52 m³/s) Aug. 13; no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	88	76	263	152
2	.00	.00	.00	.00	.00	.00	.00	.00	94	76	269	125
3	.00	.00	.00	.00	.00	.00	.00	.00	94	75	287	116
4	.00	.00	.00	.00	.00	.00	.00	28	88	71	281	124
5	.00	.00	.00	.00	.00	.00	.00	27	77	67	278	116
6	.00	.00	.00	.00	.00	.00	.00	25	65	65	274	109
7	.00	.00	.00	.00	.00	.00	.00	25	62	68	267	98
8	.00	.00	.00	.00	.00	.00	.00	25	63	68	260	96
9	.00	.00	.00	.00	.00	.00	.00	25	65	65	247	94
10	.00	.00	.00	.00	.00	.00	.00	27	62	65	247	94
11	.00	.00	.00	.00	.00	.00	.00	31	62	65	276	107
12	.00	.00	.00	.00	.00	.00	.00	30	66	116	292	130
13	.00	.00	.00	.00	.00	.00	.00	27	76	146	301	150
14	.00	.00	.00	.00	.00	.00	.00	26	72	150	267	153
15	.00	.00	.00	.00	.00	.00	.00	23	67	150	182	122
16	.00	.00	.00	.00	.00	.00	.00	46	63	173	157	112
17	.00	.00	.00	.00	.00	.00	.00	63	65	211	164	107
18	.00	.00	.00	.00	.00	.00	.00	62	73	178	206	102
19	.00	.00	.00	.00	.00	.00	.00	59	74	87	222	96
20	.00	.00	.00	.00	.00	.00	.00	56	61	58	220	92
21	.00	.00	.00	.00	.00	.00	.00	82	58	55	238	90
22	.00	.00	.00	.00	.00	.00	.00	108	57	58	260	88
23	.00	.00	.00	.00	.00	.00	.00	108	67	73	251	85
24	.00	.00	.00	.00	.00	.00	.00	108	69	125	253	83
25	.00	.00	.00	.00	.00	.00	.00	108	97	146	251	82
26	.00	.00	.00	.00	.00	.00	.00	108	143	206	269	81
27	.00	.00	.00	.00	.00	.00	.00	108	136	249	256	78
28	.00	.00	.00	.00	.00	.00	.00	107	113	253	219	77
29	.00	.00	.00	.00	---	.00	.00	100	85	258	203	75
30	.00	.00	.00	.00	---	.00	.00	89	77	260	171	75
31	.00	---	.00	.00	---	.00	---	89	---	269	167	---
TOTAL	.00	.00	.00	.00	.00	.00	.00	1720.00	2339	3982	7498	3109
MEAN	.000	.000	.000	.000	.000	.000	.000	55.5	78.0	128	242	104
MAX	.00	.00	.00	.00	.00	.00	.00	108	143	269	301	153
MIN	.00	.00	.00	.00	.00	.00	.00	.00	57	55	157	75
AC-FT	.00	.00	.00	.00	.00	.00	.00	3410	4640	7900	14870	6170

CAL YR 1978 TOTAL 26938.40 MEAN 73.8 MAX 568 MIN .00 AC-FT 53430
WTR YR 1979 TOTAL 18648.00 MEAN 51.1 MAX 301 MIN .00 AC-FT 36990

KANSAS RIVER BASIN

06853000 REPUBLICAN RIVER NEAR GUIDE ROCK, NE

LOCATION.--Lat 40°04'05", long 98°22'25", in SW1/4NE1/4 sec.7, T.1 N., R.9 W., Webster County, Hydrologic Unit 10250016, on left bank 300 ft (91 m) upstream from Willow Creek, 0.2 mi (0.3 km) downstream from Courtland diversion dam, and 2 mi (3 km) southwest of Guide Rock.

DRAINAGE AREA.--22,040 mi^2 (57,100 km^2), approximately, of which about 14,550 mi^2 (37,700 km^2) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1950 to current year.

REVISED RECORDS.-- WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,624.13 ft (495.035 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1959, at datum 5.00 ft (1.524 m) higher.

REMARKS.--Records good except those for winter period, which are poor. Natural flow affected by irrigation development above station, by regulation of upstream reservoirs, and since Nov. 14, 1952, by storage in Harlan County Lake (station 06849000).

AVERAGE DISCHARGE.--29 years, 354 ft^3/s (10.03 m^3/s), 256,500 acre-ft/yr (0.316 km^3/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 29,200 ft^3/s (827 m^3/s) June 16, 1957, gage height, 20.73 ft (6.319 m), present datum; minimum daily, 0.1 ft^3/s (0.003 m^3/s) May 26, 1964.

EXTREMES OUTSIDE PERIOD OF RECORD.-- Maximum flood since at least 1826 occurred June 1 or 2, 1935, discharge, about 250,000 ft^3/s (7,080 m^3/s), from slope-area measurements near Bloomington and Hardy.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,870 ft^3/s (110 m^3/s) Mar. 23, gage height, 14.56 ft (4.438 m); minimum daily, 2.3 ft^3/s (0.065 m^3/s) Aug. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	85	92	92	50	64	286	242	162	17	197	7.8	139
2	82	92	86	52	64	262	262	265	7.9	167	6.7	116
3	79	92	80	54	66	519	248	1790	6.9	80	28	84
4	77	91	86	54	62	339	239	818	9.8	26	35	58
5	76	91	88	54	62	282	232	343	9.8	92	12	47
6	76	92	82	56	64	401	217	248	11	56	6.0	148
7	79	91	76	56	64	1430	217	208	14	58	4.0	104
8	80	91	65	56	64	1010	214	180	17	64	2.9	65
9	85	92	65	58	66	899	211	202	65	47	2.3	56
10	85	91	72	58	76	612	217	993	85	27	8.6	46
11	85	89	75	58	72	397	252	1900	68	35	76	27
12	84	89	84	58	70	286	265	654	30	45	90	12
13	80	92	84	60	70	242	248	347	17	11	87	4.7
14	82	94	90	60	76	205	232	282	9.8	8.5	260	4.5
15	89	94	96	60	72	185	223	229	8.5	21	592	4.4
16	89	94	100	60	60	172	217	175	9.1	183	700	4.4
17	89	94	104	64	54	172	211	139	13	248	228	4.2
18	87	94	108	68	54	194	211	134	12	1630	100	4.2
19	87	89	105	74	62	205	211	125	6.9	743	67	4.0
20	89	58	100	74	78	191	245	119	4.5	232	101	4.0
21	87	54	110	80	110	180	369	68	4.8	113	130	4.0
22	94	56	110	86	300	1740	248	35	5.5	65	97	3.8
23	99	75	105	78	900	3140	202	36	26	41	32	3.8
24	96	90	100	82	1000	1120	194	26	1050	25	20	3.9
25	91	85	100	84	750	514	185	17	486	14	25	3.9
26	91	80	95	76	500	373	236	12	152	41	719	3.7
27	92	80	100	70	350	317	310	9.1	37	17	2580	3.2
28	94	90	110	60	290	289	220	6.4	268	8.5	712	3.0
29	98	100	82	62	---	275	214	16	547	36	220	2.9
30	98	100	70	64	---	258	194	22	300	77	210	2.8
31	92	---	50	64	---	239	---	24	---	14	149	---
TOTAL	2697	2612	2770	1990	5520	16734	6986	9584.5	3298.5	4422.0	7308.3	971.4
MEAN	87.0	87.1	89.4	64.2	197	540	233	309	110	143	236	32.4
MAX	99	100	110	86	1000	3140	369	1900	1050	1630	2580	148
MIN	76	54	50	50	54	172	185	6.4	4.5	8.5	2.3	2.8
AC-FT	5350	5180	5490	3950	10950	33190	13860	19010	6540	8770	14500	1930

CAL YR 1978 TOTAL 43090.46 MEAN 118 MAX 1760 MIN .96 AC-FT 85470
WTR YR 1979 TOTAL 64893.70 MEAN 178 MAX 3140 MIN 2.3 AC-FT 128700

06853000 REPUBLICAN RIVER NEAR GUIDE ROCK, NE—Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water year 1962 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (JTU) (00070)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT										
23...	1300	100	599	8.0	11.0	10	11.6	3.5	--	200
NOV										
20...	1500	56	--	7.7	.0	8	13.7	3.2	--	200
DEC										
18...	1515	108	638	7.9	3.0	15	12.5	2.2	1000	200
JAN										
15...	1540	59	550	7.5	.0	7	8.1	1.6	200	140
FEB										
26...	1415	700	340	7.5	.0	50	11.4	10	25000	86000
MAR										
28...	1445	287	700	8.0	12.0	20	10.4	2.3	3800	8000
APR										
24...	1400	181	780	8.2	18.0	30	9.8	3.6	K80000	1400
MAY										
21...	1345	52	800	8.1	17.0	5	10.8	5.7	K12000	190
JUN										
18...	1445	10	680	8.1	23.0	15	9.8	3.4	3000	K120
JUL										
16...	1515	250	480	8.0	23.0	100	7.5	5.9	K480000	K10000
AUG										
28...	1430	590	425	7.9	22.0	250	7.9	3.8	K15000	6400
SEP										
24...	1400	3.8	620	8.2	21.0	--	10.4	4.2	120	K50

K Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)
OCT										
23...	18	367	.50	99.1	.45	.06	1.1	1.2	1.7	.22
NOV										
20...	19	421	.57	63.7	1.3	.08	.45	.53	1.8	.17
DEC										
18...	18	410	.56	120	1.4	.07	.43	.50	1.9	.14
JAN										
15...	17	--	.54	63.7	1.6	.25	.41	.66	2.3	.17
FEB										
26...	9.9	232	.32	438	1.5	.60	2.3	2.9	4.4	.86
MAR										
28...	27	--	.65	372	1.1	.16	.40	.56	1.7	.27
APR										
24...	20	493	.67	241	.93	.02	.51	.53	1.5	.30
MAY										
21...	25	504	.69	70.8	.63	.04	.46	.50	1.1	.15
JUN										
18...	19	453	.62	12.2	.30	.04	.87	.91	1.2	.21
JUL										
16...	19	--	.40	197	.99	.01	4.8	4.8	5.8	.41
AUG										
28...	49	267	.36	425	--	--	--	--	--	1.0
SEP										
24...	21	431	.59	4.42	.38	.13	.69	.82	1.2	.18

06853000 REPUBLICAN RIVER NEAR GUIDE ROCK, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	COLOR (PLAT-INUM-COBALT UNITS) (00080)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)
OCT 23...	1300	--	260	64	76	18	28	.8	11	200	92
DEC 18...	1515	--	260	32	80	15	26	.7	10	230	76
JAN 15...	1540	--	270	27	82	15	29	.8	10	240	69
MAR 28...	1445	--	350	99	110	18	33	.8	2.7	250	110
APR 24...	1400	--	280	80	84	17	37	1.0	13	200	120
JUN 18...	1445	--	290	70	88	17	34	.9	12	220	110
JUL 16...	1515	--	170	19	48	12	28	.9	15	150	66
SEP 24...	1400	5	290	77	82	20	40	1.0	12	210	140

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P) (00666)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)
OCT 23...	.4	27	--	.48	.09	4	200	100	3	0
DEC 18...	.3	31	402	1.5	.14	4	200	80	6	0
JAN 15...	.3	33	400	--	.15	--	--	70	--	--
MAR 28...	.4	28	480	--	.23	--	--	90	--	--
APR 24...	.4	31	447	.88	.23	6	200	110	--	0
JUN 18...	.3	31	445	.24	.03	5	100	80	--	0
JUL 16...	.6	13	292	--	.12	--	--	190	--	--
SEP 24...	.4	28	472	.38	.12	--	--	90	--	--

DATE	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY SUS-PENDED RECOV-ERABLE (UG/L AS HG) (71895)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
OCT 23...	4	30	--	40	--	--	.0	2	0	10
DEC 18...	3	40	5	60	.0	.0	.1	2	0	3
JAN 15...	--	10	--	60	--	--	--	--	--	--
MAR 28...	--	10	--	40	--	--	--	--	--	--
APR 24...	0	20	--	90	.2	.1	.1	3	0	<3
JUN 18...	0	10	--	30	.0	.0	.0	2	0	140
JUL 16...	--	340	--	50	--	--	--	--	--	--
SEP 24...	--	10	--	30	--	--	--	--	--	--

06853500 REPUBLICAN RIVER NEAR HARDY, NE

LOCATION.--Lat 39°59'33", long 97°55'53", in NW1/4NW1/4SW1/4 sec.6, T.1 S., R.5 W., in Kansas, Republic County, Hydrologic Unit, 10250016, at downstream side of highway bridge, 1.2 mi (1.9 km) southwest of Hardy and at mi 141.2 (227.2 km).

DRAINAGE AREA.--22,401 mi² (58,019 km²), of which about 7,500 mi² (19,425 km²) does not contribute directly to surface runoff.

PERIOD OF RECORD.--June 1904 to September 1915 (no winter records), April 1931 to current year. Prior to May 1932, published as "at Bostwick." Records for June 1896 to November 1903 published as "near Superior" in 18th to 22nd Ann. Repts., inclusive, Pt. 4, and WSP 75, 84, and 99, have been found to be unreliable and should not be used.

REVISED RECORDS.--WSP 806: Drainage area. WSP 1006: 1941. WSP 1340: 1905(M), 1907-9, 1912, 1914-15, 1931. See also PERIOD OF RECORD.

GAGE.--Water-stage recorder. Datum of gage is 1,501.46 ft (457.645 m) National Geodetic Vertical Datum of 1929. Prior to May 19, 1932, nonrecording gage at site at Bostwick, 20 mi (32 km) upstream at different datum.

REMARKS.--Records fair except those for winter periods and periods of no gage-height record Mar. 20-28, July 7-16, 19-23, Sept. 30, which are poor. Natural flow affected by irrigation development above station and by storage in six reservoirs in Colorado and Nebraska. Considerable regulation since 1952 by Harlan County Reservoir (see site 06849000).

AVERAGE DISCHARGE.--48 years (water years 1914, 1933-79), 591 ft³/s (16.74 m³/s), 428,200 acre-ft/yr (0.528 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 225,000 ft³/s (6,370 m³/s) June 2, 1935, gage height, 19.4 ft (5.91 m), based on records for stations upstream; no flow Aug. 9-19, 1934.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stages since at least 1895, that of June 2, 1935, and 17.00 ft (5.182 m) June 24, 1947, discharge, 100,000 ft³/s (2,830 m³/s), based on records for upstream stations.

EXTREMES FOR CURRENT YEAR.--Peak discharges above regulated base of 2,500 ft³/s (70.8 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Feb. 28	2200	3970	112	9.11	2.777	Mar. 22	unknown	*4200	119	9.32	2.841
Mar. 3	1200	4110	116	9.24	2.816						

Minimum discharge, 24 ft³/s (0.68 m³/s) Aug. 9, 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	106	115	147	60	70	3110	387	228	75	330	86	262
2	106	116	144	60	70	1950	401	243	70	261	66	250
3	101	117	90	60	70	2260	398	454	62	234	58	207
4	97	119	90	60	70	870	373	1260	62	156	57	166
5	96	121	90	60	70	532	345	636	54	140	70	131
6	95	121	90	70	70	640	324	413	54	172	78	101
7	96	119	80	70	70	1420	306	336	52	150	48	216
8	99	120	80	70	70	1370	297	303	57	140	34	184
9	100	123	80	70	70	910	285	270	75	130	25	131
10	99	124	120	70	80	795	288	297	93	120	27	108
11	100	123	120	70	80	632	309	1140	114	110	36	97
12	98	121	120	70	80	476	321	1230	106	100	57	86
13	99	124	120	70	80	380	315	600	86	90	111	77
14	97	122	120	60	90	327	291	440	65	80	129	64
15	98	123	120	70	100	282	276	376	57	80	398	58
16	102	124	120	70	90	255	267	324	54	150	603	54
17	103	128	120	80	80	240	261	264	52	267	535	51
18	103	129	120	90	70	424	255	234	54	910	312	47
19	106	126	120	100	80	624	246	213	55	1330	233	48
20	107	124	120	100	100	500	246	204	47	800	182	43
21	108	113	120	100	150	1000	267	198	44	500	213	43
22	117	112	120	100	300	3500	357	172	49	300	227	40
23	123	123	120	90	972	2000	294	138	108	200	172	40
24	135	137	120	90	1500	1000	258	126	134	136	130	38
25	139	150	120	90	1570	800	237	114	648	116	99	38
26	130	192	120	80	1240	600	228	104	348	93	745	36
27	120	190	120	80	1150	500	261	96	201	88	1560	35
28	119	169	120	70	2800	480	327	87	564	84	1790	32
29	119	162	100	70	---	464	267	80	524	75	683	31
30	119	153	80	70	---	432	246	79	524	80	387	30
31	118	---	70	70	---	401	---	77	---	107	288	---
TOTAL	3355	3940	3421	2340	11242	29174	8933	10736	4488	7529	9439	2740
MEAN	108	131	110	75.5	402	941	298	346	150	243	304	91.3
MAX	139	192	147	100	2800	3500	401	1260	648	1330	1790	262
MIN	95	112	70	60	70	240	228	77	44	75	25	30
AC-FT	6650	7810	6790	4640	22300	57870	17720	21290	8900	14930	18720	5430

CAL YR 1978 TOTAL 72506 MEAN 199 MAX 3000 MIN 30 AC-FT 143800
WTR YR 1979 TOTAL 97337 MEAN 267 MAX 3500 MIN 25 AC-FT 193100

06879900 BIG BLUE RIVER AT SURPRISE, NE

LOCATION.--Lat 41°06'05", long 97°18'35", in NW1/4NW1/4 sec.15, T.13 N., R.1 E., Butler County, Hydrologic Unit 10270201, on left bank 50 ft (15 m) downstream from bridge on county road at south edge of Surprise.

DRAINAGE AREA.--345 mi² (894 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1964 to current year. Prior to October 1965, published as North Branch Big Blue River at Surprise.

GAGE.--Water-stage recorder and concrete broad-crested weir control. Altitude of gage is 1,520 ft (463 m), from topographic map.

REMARKS.--Records good above 5 ft³/s (0.14 m³/s) and poor below.

AVERAGE DISCHARGE.--15 years, 27.8 ft³/s (0.787 m³/s), 20,140 acre-ft/yr (24.8 hm³/yr); median of yearly mean discharges, 24 ft³/s (0.680 m³/s), 17,400 acre-ft/yr (21.5 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,700 ft³/s (303 m³/s) July 19, 1965, gage height, 11.52 ft (3.511 m); no flow for many days in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 250 ft³/s (7.08 m³/s) and maximum (*):

Date	Time	Discharge		Gage height		Date	Time	Discharge		Gage height	
		(ft³/s)	(m³/s)	(ft)	(m)			(ft³/s)	(m³/s)	(ft)	(m)
Mar. 13	1845	*1160	32.9	5.81	1.771	May 11	0145	255	7.2	3.04	0.927
May 3	1845	840	23.8	4.94	1.506	June 28	unknown	549	15.5	a3.96	1.207

a From highwater mark.

No flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.07	.32	.00	.00	.13	.03	5.1	33	3.3	15	9.0	.75
2	.05	.32	.00	.00	.12	.65	3.9	572	4.0	7.8	8.2	.92
3	.02	.32	.03	.00	.13	4.3	2.7	784	3.5	6.0	5.6	.94
4	.01	.10	.03	.00	.11	1.7	2.7	361	3.4	19	6.9	.60
5	.01	.05	.07	.00	.11	1.9	2.3	93	7.8	69	9.2	.96
6	.00	.00	.00	.00	.10	6.9	1.7	52	12	27	7.1	1.0
7	.00	.00	.00	.00	.10	21	1.7	32	14	13	6.4	.44
8	.00	.00	.00	.00	.03	28	1.4	25	15	6.1	5.6	.77
9	.00	.03	.00	.00	.06	65	1.1	25	22	4.8	5.3	.53
10	.00	.00	.00	.01	.03	214	1.1	110	23	4.6	4.4	.45
11	.00	.00	.00	.01	.03	244	2.1	211	23	3.7	3.8	.31
12	.00	.03	.00	.02	.04	521	2.3	94	28	3.0	1.9	.03
13	.00	.06	.00	.01	.04	1070	5.5	107	36	2.8	1.6	.04
14	.00	.00	.00	.00	.07	602	4.4	74	44	2.3	2.1	.01
15	.00	.00	.00	.02	.03	221	2.6	36	57	107	1.6	.04
16	.00	.00	.00	.02	.02	360	2.4	23	58	69	.95	.04
17	.00	.03	.00	.03	.03	329	1.9	14	40	36	1.1	.07
18	.00	.00	.00	.04	.04	149	1.6	8.4	25	16	.93	.08
19	.00	.00	.00	.06	.06	89	1.6	6.1	15	5.7	1.0	.07
20	.03	.00	.00	.05	.05	50	37	4.4	100	3.5	1.8	.13
21	.03	.00	.00	.05	.06	35	5.4	3.8	50	2.5	1.8	.03
22	.22	.00	.00	.07	.05	59	3.1	2.4	35	1.7	2.6	.07
23	.32	.00	.00	.04	.05	72	5.7	2.2	90	1.4	5.9	.12
24	.44	.00	.00	.02	.04	42	4.9	2.1	40	1.5	4.2	.19
25	.44	.00	.00	.03	.04	30	4.6	2.1	20	1.8	3.7	.23
26	.32	.00	.00	.06	.04	19	2.8	2.8	6.0	2.1	2.8	.12
27	.32	.00	.00	.06	.05	28	2.0	2.9	49	3.0	4.3	.14
28	.22	.00	.00	.03	.05	28	2.4	3.2	410	19	1.8	.08
29	.44	.00	.00	.06	---	23	2.6	6.7	100	37	1.2	.04
30	.44	.00	.00	.04	---	15	2.0	3.8	35	29	1.2	.00
31	.22	---	.00	.08	---	7.5	---	3.1	---	15	.87	---
TOTAL	3.60	1.26	.13	.81	1.71	4336.98	120.6	2700.0	1369.0	535.3	114.85	9.20
MEAN	.12	.042	.004	.026	.061	140	4.02	87.1	45.6	17.3	3.70	.31
MAX	.44	.32	.07	.08	.13	1070	37	784	410	107	9.2	1.0
MIN	.00	.00	.00	.00	.02	.03	1.1	2.1	3.3	1.4	.87	.00
AC-FT	7.1	2.5	.3	1.6	3.4	8600	239	5360	2720	1060	228	18

CAL YR 1978 TOTAL 12976.81 MEAN 35.6 MAX 1680 MIN .00 AC-FT 25740
WTR YR 1979 TOTAL 9193.44 MEAN 25.2 MAX 1070 MIN .00 AC-FT 18240

06879900 BIG BLUE RIVER AT SURPRISE, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965-1970, 1974-1979.

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	TEMPER-ATURE (DEG C) (00010)
OCT 24...	1200	.60	540	12.0
APR 24...	0830	4.7	336	16.0
MAY 22...	1230	2.3	237	16.5
JUN 29...	1615	72	188	28.0
JUL 19...	1130	6.0	211	27.0
AUG 16...	1015	.94	503	18.5
SEP 11...	1055	91	551	24.0

06880000 LINCOLN CREEK NEAR SEWARD, NE

LOCATION.--Lat 40°54'57", long 97°08'43", in NW1/4NE1/4 sec.24, T.11 N., R.2 E., Seward County, Hydrologic Unit 10270201, on left bank 20 ft (6 m) downstream from county road bridge, 2 mi (3 km) west of Seward, and 2.5 mi (4.0 km) upstream from mouth.

DRAINAGE AREA.--446 mi² (1,155 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1953 to September 1973, March 1974 to current year. Monthly discharge only for some periods, published in WSP 1730.

REVISED RECORDS.--WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,429.27 ft (435.641 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for winter period, which are poor. Small diversions for irrigation above station.

AVERAGE DISCHARGE.--25 years, (1953-73, 1974-79) 44.3 ft³/s (1.255 m³/s), 32,100 acre-ft/yr (39.6 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,100 ft³/s (286 m³/s) June 17, 1957, gage height, 20.53 ft (6.258 m); minimum daily, 1.3 ft³/s (0.037 m³/s) July 31, 1955.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 350 ft³/s (9.91 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Mar. 14	1300	*2240	63.4	17.44	5.316
May 3	0500	827	23.4	12.42	3.786

Minimum daily discharge, 5.5 ft³/s (0.16 m³/s) Sept. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.4	7.6	7.8	6.4	7.0	9.0	36	24	12	28	18	19
2	6.3	8.0	7.0	6.8	7.8	20	34	612	12	21	13	16
3	6.3	7.1	6.0	7.2	7.4	110	31	718	12	27	13	12
4	6.2	7.2	7.0	6.8	6.8	60	28	265	11	35	12	9.6
5	6.5	7.1	7.8	6.4	7.0	45	27	159	11	27	12	8.5
6	6.5	7.3	7.0	7.0	9.0	54	25	107	10	45	13	7.7
7	6.6	7.0	6.2	6.8	8.0	100	23	88	10	31	11	6.9
8	6.6	7.1	5.8	7.4	7.4	200	22	62	10	28	9.5	6.1
9	6.6	7.5	5.8	7.6	8.0	400	21	57	12	22	9.6	6.3
10	6.6	7.1	7.4	7.8	8.6	680	20	51	13	19	9.5	5.5
11	6.2	7.0	8.2	8.0	9.4	1080	23	48	11	17	14	5.7
12	6.2	7.9	8.6	8.2	9.0	1300	22	78	11	16	15	6.1
13	6.3	8.5	8.2	7.0	9.4	1600	19	81	10	15	14	6.4
14	6.4	8.4	8.4	6.0	11	2180	18	104	10	14	18	6.3
15	6.6	8.2	8.2	7.6	9.8	1760	19	114	11	34	21	5.9
16	7.0	8.3	7.8	7.4	7.0	1020	18	69	11	18	23	5.7
17	6.8	8.8	8.0	8.0	7.8	519	18	50	11	21	24	5.8
18	7.3	8.7	8.0	8.4	9.0	417	17	38	11	16	19	5.8
19	7.5	7.9	7.6	8.6	12	310	17	30	11	13	19	5.8
20	7.3	7.0	7.0	8.0	11	140	29	25	12	13	17	5.8
21	7.4	7.8	7.8	7.8	10	82	99	22	12	12	14	5.9
22	8.5	8.6	8.0	9.0	13	105	145	20	19	9.9	14	5.8
23	8.7	9.4	7.6	8.0	12	272	65	18	16	9.5	14	5.9
24	8.0	9.0	6.6	7.0	9.6	159	38	16	20	12	9.6	6.2
25	7.4	8.9	7.6	9.6	10	96	31	15	25	17	11	5.9
26	7.6	9.2	7.0	8.0	11	74	41	15	12	20	35	5.9
27	7.8	9.0	6.8	7.6	12	57	40	14	11	30	24	5.9
28	7.5	8.0	8.4	7.0	9.4	72	32	14	17	27	18	6.1
29	7.4	9.3	7.6	6.6	---	70	29	13	162	43	14	6.3
30	7.5	8.4	7.0	7.2	---	52	25	13	60	35	11	6.2
31	7.3	---	6.6	6.4	---	40	---	13	---	24	12	---
TOTAL	217.3	241.3	228.8	231.6	259.4	13083.0	1012	2953	576	699.4	481.2	217.0
MEAN	7.01	8.04	7.38	7.47	9.26	422	33.7	95.3	19.2	22.6	15.5	7.23
MAX	8.7	9.4	8.6	9.6	13	2180	145	718	162	45	35	19
MIN	6.2	7.0	5.8	6.0	6.8	9.0	17	13	10	9.5	9.5	5.5
AC-FT	431	479	454	459	515	25950	2010	5860	1140	1390	954	430

CAL YR 1978 TOTAL 15760.4 MEAN 43.2 MAX 1300 MIN 5.6 AC-FT 31260
WTR YR 1979 TOTAL 20200.0 MEAN 55.3 MAX 2180 MIN 5.5 AC-FT 40070

06880000 LINCOLN CREEK NEAR SEWARD, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1963-70, 1973 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (JTU) (00070)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT										
27...	1015	8.3	520	7.9	6.5	30	10.0	3.4	K135	K900
NOV										
29...	1230	10	540	7.8	1.0	10	12.5	3.3	K90	3000
JAN										
02...	1230	6.7	644	7.4	.5	15	9.0	3.4	767	1300
29...	1445	6.6	540	7.2	.0	9	11.5	1.2	K20	--
MAR										
06...	1000	54	257	7.1	.5	30	7.2	11	1130	K82000
APR										
02...	1315	34	439	7.6	6.0	85	10.2	<11	500	K19000
23...	1310	59	196	7.4	17.0	1500	6.3	6.3	14000	50000
MAY										
22...	1145	20	439	7.4	17.0	250	7.5	9.1	800	1000
JUN										
20...	1110	11	543	8.3	19.0	40	7.6	5.4	1000	3400
JUL										
17...	1430	23	400	7.8	24.0	320	6.4	8.4	110000	4300
AUG										
16...	1215	23	538	8.3	17.0	80	8.2	7.7	1500	4100
SEP										
11...	0930	5.4	494	8.0	21.0	65	6.5	5.4	1100	2800

K Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)
OCT										
27...	9.3	348	.47	7.80	1.2	.04	.79	.83	2.0	.39
NOV										
29...	7.3	349	.47	9.42	1.4	.02	.64	.66	2.1	.30
JAN										
02...	8.6	433	.59	7.83	2.2	.01	.42	.43	2.6	.32
29...	6.5	333	.45	5.93	2.1	.12	.23	.35	2.5	.31
MAR										
06...	6.6	--	.19	20.6	3.0	1.3	1.6	2.9	5.9	.78
APR										
02...	13	290	.39	26.6	2.0	1.7	2.4	4.1	6.1	.95
23...	7.1	156	.21	24.9	1.9	1.7	9.3	11	13	2.2
MAY										
22...	6.8	276	.38	15.1	3.0	.08	1.9	2.0	5.0	.93
JUN										
20...	7.2	356	.48	10.6	1.2	.03	2.2	2.2	3.4	.62
JUL										
17...	6.0	267	.36	16.6	2.4	.10	2.9	3.0	5.4	.44
AUG										
16...	17	--	.43	20.5	1.4	.08	2.6	2.7	4.1	.80
SEP										
11...	5.5	319	.43	4.65	.82	.08	.81	.89	1.7	.65

06880000 LINCOLN CREEK NEAR SEWARD, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L CACO3) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LINITY (MG/L AS CACO3) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)
NOV										
29...	1230	240	0	72	14	28	.8	6.7	240	40
MAR										
06...	1000	82	0	24	5.4	9.2	.4	15	85	17
MAY										
22...	1145	180	5	52	11	24	.8	11	170	36
AUG										
16...	1215	200	0	58	14	31	.9	18	210	48

DATE	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00666)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)
NOV										
29...	.2	38	368	.13	.28	5	200	60	--	0
MAR										
06...	.2	12	141	--	--	--	--	80	--	--
MAY										
22...	.4	29	286	2.9	.53	4	200	60	0	0
AUG										
16...	.4	4.0	317	--	.40	--	--	70	--	--

DATE	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MERCURY SUS- PENDED RECOV- ERABLE (UG/L AS HG) (71895)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)
NOV										
29...	5	10	--	160	--	--	.2	12	0	10
MAR										
06...	--	290	--	--	--	--	--	--	--	--
MAY										
22...	5	60	1	160	.1	.1	.0	6	0	10
AUG										
16...	--	20	--	<1	--	--	--	--	--	--

06880500 BIG BLUE RIVER AT SEWARD, NE

LOCATION.--Lat 40°54'05", long 97°05'55", in NW1/4NW1/4 sec.28, T.11 N., R.3 E., Seward County, Hydrologic Unit 10270201, at downstream end of left abutment of bridge on State Highway 15 at south edge of Seward, 0.5 mi (0.8 km) upstream from Plum Creek and 1.4 mi (2.3 km) downstream from Lincoln Creek.

DRAINAGE AREA.--1,101 mi^2 (2,852 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1953 to current year. Monthly discharge only for some periods, published in WSP 1730.

REVISED RECORDS.--WSP 1919: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,415.16 ft (431.341 m) National Geodetic Vertical Datum of 1929. Prior to Dec. 19, 1969, at site 1.2 mi (1.9 km) upstream at datum 6.33 ft (1.929 m) higher.

REMARKS.--Records fair except those for winter period, which are poor. Natural flow of stream affected by ground-water withdrawals and diversions for irrigation and return flow from irrigated areas.

AVERAGE DISCHARGE.--26 years, 113 ft^3/s (3.200 m^3/s), 81,870 acre-ft/yr (0.101 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,300 ft^3/s (433 m^3/s) June 18, 1957; maximum gage height, 22.83 ft (6.959 m) June 16, 1967, site and datum then in use; no flow July 30, 31, 1955, result of irrigation pumping.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 900 ft^3/s (25.5 m^3/s) and maximum(*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Mar. 14	2400	3530	100.0	*21.67	6.605	May 2	2400	2700	76.5	17.84	5.438
Mar. 23	1300	1270	36.0	12.71	3.874	June 29	2300	931	26.4	10.99	3.350

Minimum daily discharge, 9.9 ft^3/s (0.28 m^3/s) Oct. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	16	19	14	15	19	107	108	37	359	47	28
2	11	17	18	13	17	40	97	1830	36	202	38	27
3	10	15	17	15	17	250	91	2260	36	93	33	23
4	9.9	15	18	16	16	110	92	1250	36	76	29	20
5	10	16	19	15	15	90	83	699	32	61	27	17
6	10	16	18	17	18	140	73	403	30	80	26	17
7	10	15	17	15	17	400	67	258	28	142	23	16
8	10	15	14	17	17	600	61	177	28	86	21	15
9	10	16	14	17	16	700	57	148	34	68	20	14
10	11	17	16	17	16	1000	57	153	36	56	19	13
11	10	16	17	18	17	1360	67	135	34	49	20	12
12	11	16	18	18	16	1770	72	300	40	43	25	13
13	11	17	16	17	17	2350	81	329	39	36	25	12
14	12	17	17	14	19	3200	76	230	32	31	27	12
15	12	16	17	17	18	3870	63	263	28	346	32	12
16	12	17	16	18	14	3580	59	187	27	554	35	12
17	12	19	17	20	17	2220	54	121	28	373	35	11
18	12	19	18	21	18	1500	51	95	27	186	30	11
19	13	18	17	21	19	1000	48	79	28	108	26	11
20	14	17	17	20	18	700	61	69	28	69	26	11
21	14	17	19	20	17	530	344	63	29	49	24	11
22	20	18	18	22	20	534	349	59	35	37	23	12
23	16	18	17	20	18	1190	145	53	58	30	24	12
24	17	18	15	18	17	1030	88	49	42	39	21	12
25	17	18	17	20	18	541	84	47	45	36	21	11
26	17	19	17	19	21	305	92	45	34	37	40	11
27	18	19	18	18	22	214	158	42	40	42	44	11
28	18	21	18	17	19	177	90	41	288	43	34	11
29	18	20	17	16	---	177	74	39	602	48	29	10
30	18	19	16	17	---	152	75	38	679	45	25	10
31	17	---	15	15	---	124	---	38	---	42	25	---
TOTAL	411.9	517	527	542	489	29873	2916	9608	2496	3466	874	418
MEAN	13.3	17.2	17.0	17.5	17.5	964	97.2	310	83.2	112	28.2	13.9
MAX	20	21	19	22	22	3870	349	2260	679	554	47	28
MIN	9.9	15	14	13	14	19	48	38	27	30	19	10
AC-FT	817	1030	1050	1080	970	59250	5780	19060	4950	6870	1730	829

CAL YR 1978 TOTAL 60445.9 MEAN 166 MAX 3810 MIN 9.9 AC-FT 119900
WTR YR 1979 TOTAL 52137.9 MEAN 143 MAX 3870 MIN 9.9 AC-FT 103400

06880500 BIG BLUE RIVER AT SEWARD, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--October 1978 to September 1979.

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (JTU) (00070)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT										
27...	1100	35	640	7.8	7.5	30	9.2	5.8	2700	1560
NOV										
29...	1015	42	710	8.0	1.5	7	13.3	11	240	480
JAN										
02...	1100	13	850	7.7	.0	5	11.5	2.0	110	K332
29...	1530	16	690	7.2	.0	5	11.8	4.4	K38	--
MAR										
06...	1145	200	283	7.2	.0	45	7.9	25	2200	K90000
APR										
02...	1225	96	573	8.0	6.0	60	8.4	8.2	K78	K15000
23...	1440	136	289	7.5	17.0	1000	5.5	--	12700	35000
MAY										
22...	1030	59	537	7.0	17.0	150	7.5	2.5	540	500
JUN										
20...	1150	28	678	8.2	21.0	40	7.9	7.0	K1600	2600
JUL										
17...	1230	366	230	7.4	23.0	850	5.7	15	13000	6000
AUG										
16...	1330	34	555	8.3	17.5	80	8.2	10	1200	2400
SEP										
11...	0810	13	554	7.8	20.5	55	5.7	6.5	700	1040

K Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)
OCT										
27...	22	417	.57	39.4	.13	.01	1.6	1.6	1.7	.39
NOV										
29...	12	474	.64	53.8	.88	.03	.81	.84	1.7	.32
JAN										
02...	12	555	.75	19.5	2.0	.02	.40	.42	2.4	.29
29...	8.7	466	.63	20.1	2.1	.29	.25	.54	2.6	.25
MAR										
06...	7.8	--	.23	91.3	2.5	1.5	3.0	4.5	7.0	.74
APR										
02...	15	374	.51	96.9	1.9	1.7	1.6	3.3	5.2	.83
23...	6.6	204	.28	74.9	1.9	1.5	6.7	8.2	10	1.0
MAY										
22...	9.5	343	.47	55.0	3.0	.11	1.4	1.5	4.5	.77
JUN										
20...	8.8	438	.60	33.1	.53	.04	1.4	1.4	1.9	.56
JUL										
17...	5.4	155	.21	153	2.2	.32	5.5	5.8	8.0	.60
AUG										
16...	14	--	.47	32.2	.71	.13	2.1	2.2	2.9	.71
SEP										
11...	6.3	353	.48	12.4	.79	.10	.81	.91	1.7	.56

06880500 BIG BLUE RIVER AT SEWARD, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)
NOV										
29...	1015	310	13	89	22	44	1.1	8.8	300	91
MAR										
06...	1145	100	15	30	6.7	11	.5	15	88	35
MAY										
22...	1030	210	34	61	15	27	.8	13	180	67
AUG										
16...	1330	220	0	63	15	35	1.0	17	220	69

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P) (00666)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)
NOV										
29...	.2	28	479	.70	.23	5	200	70	--	0
MAR										
06...	.2	9.7	169	--	--	--	--	50	--	--
MAY										
22...	.3	22	337	3.0	.47	5	200	50	0	0
AUG										
16...	.4	.3	346	--	.38	--	--	80	--	--

DATE	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY SUS-PENDED RECOV-ERABLE (UG/L AS HG) (71895)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
NOV										
29...	4	10	--	240	.0	.0	.0	7	0	10
MAR										
06...	--	280	--	--	--	--	--	--	--	--
MAY										
22...	3	40	0	260	.2	.0	.2	3	0	10
AUG										
16...	--	20	--	4	--	--	--	--	--	--

06880800 WEST FORK BIG BLUE RIVER NEAR DORCHESTER, NE

LOCATION.--Lat 40°43'52", long 97°10'38", in SW1/4SW1/4 sec.23, T.9 N., R.2 E., Seward County, Hydrologic Unit 10270203, on right bank 60 ft (18 m) downstream from bridge on county road, 6.2 mi (10.0 km) northwest of Dorchester, and 19 mi (31 km) upstream from mouth.

DRAINAGE AREA.--1,206 mi² (3,124 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1958 to current year.

REVISED RECORDS.-- WSP 1919: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,403.48 ft (427.781 m) National Geodetic Vertical Datum of 1929. Prior to Apr. 14, 1970, at site 60 ft (18 m) upstream at same datum.

REMARKS.--Records fair except those for winter period, which are poor. Some diversion by pumping for irrigation above station. Natural flow of stream affected by ground-water withdrawals for irrigation and return flow from irrigated areas.

AVERAGE DISCHARGE.--21 years, 171 ft³/s (4.843 m³/s), 123,900 acre-ft/yr (0.153 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,400 ft³/s (323 m³/s) Mar. 20, 1969, gage height, 20.34 ft (6.200 m); minimum daily, 12 ft³/s (0.34 m³/s) Dec. 31, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 10, 1950, reached a stage of 24.8 ft (7.56 m), present datum, from floodmarks, discharge, 49,400 ft³/s (1,400 m³/s), from contracted-opening and flow-over-road measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,500 ft³/s (42.5 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Mar. 7	1700	*4600	17.0	a18.43	5.617
May 6	0530	2000	56.6	13.36	4.072

a Ice jam.

Minimum daily discharge, 18 ft³/s (0.51 m³/s) Feb. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36	36	40	26	18	200	200	300	88	194	89	141
2	36	37	35	28	30	500	187	953	85	251	85	98
3	35	37	33	32	40	800	170	1160	80	550	94	82
4	34	37	45	29	35	1200	157	1150	77	307	91	90
5	35	37	37	25	33	1700	146	1620	72	307	99	71
6	34	37	32	28	45	2200	136	1880	69	288	101	59
7	34	37	28	27	37	3500	133	1160	68	428	92	54
8	35	37	26	26	35	4300	125	543	65	283	80	49
9	35	37	26	29	30	4200	119	412	69	161	82	54
10	35	37	35	28	42	4000	118	351	72	127	102	54
11	35	38	40	30	40	3820	118	362	73	108	109	66
12	35	38	45	33	35	3270	118	501	69	94	122	66
13	40	39	42	25	37	2720	119	788	64	84	127	64
14	58	39	44	23	40	1840	131	926	63	76	103	66
15	59	39	38	35	45	1070	115	746	62	86	102	59
16	57	38	37	37	40	654	118	452	66	73	103	53
17	52	39	40	35	35	444	121	319	63	69	88	53
18	43	40	45	39	40	759	108	255	60	69	75	50
19	38	40	50	40	45	813	99	221	60	70	69	47
20	37	40	45	38	38	452	95	199	61	74	62	44
21	39	41	56	35	36	404	113	179	58	74	59	42
22	46	42	45	40	45	532	221	162	58	73	55	40
23	49	41	35	25	36	1040	219	149	63	161	57	40
24	46	38	30	23	30	993	258	139	121	384	59	39
25	50	40	35	30	32	779	440	130	361	671	112	38
26	47	44	39	35	45	670	556	123	190	270	168	38
27	44	41	45	33	60	554	612	116	162	187	186	37
28	43	42	50	30	100	428	574	109	135	145	146	36
29	44	42	40	26	---	322	405	103	422	119	110	37
30	42	41	37	30	---	262	321	98	359	106	149	36
31	39	---	31	22	---	220	---	92	---	97	198	---
TOTAL	1292	1171	1206	942	1124	44646	6352	15698	3315	5986	3174	1703
MEAN	41.7	39.0	38.9	30.4	40.1	1440	212	506	111	193	102	56.8
MAX	59	44	56	40	100	4300	612	1880	422	671	198	141
MIN	34	36	26	22	18	200	95	92	58	69	55	36
AC-FT	2560	2320	2390	1870	2230	88560	12600	31140	6580	11870	6300	3380

CAL YR 1978 TOTAL 57149 MEAN 157 MAX 3650 MIN 26 AC-FT 113400
WTR YR 1979 TOTAL 86609 MEAN 237 MAX 4300 MIN 18 AC-FT 171800

06880800 WEST FORK BIG BLUE RIVER NEAR DORCHESTER, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1963-70, 1973 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (JTU) (00070)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT										
18...	1110	45	551	7.8	9.0	40	10.3	2.6	630	1400
NOV										
14...	1100	39	845	8.0	4.0	5	12.6	2.8	K107	260
DEC										
14...	1000	55	597	7.4	.0	3	12.7	2.1	K200	2100
JAN										
08...	1725	35	625	7.4	1.0	4	9.7	2.0	173	168
FEB										
06...	0945	53	609	7.6	.0	4	9.9	5.4	K633	K77
MAR										
06...	1300	2200	168	7.1	.5	160	8.7	12	K630	K68000
APR										
03...	1045	142	389	7.7	5.0	150	10.2	5.4	K233	15800
MAY										
02...	1120	1040	175	7.2	13.0	1500	5.4	5.7	K200000	K250000
29...	1215	77	520	7.9	20.5	60	15.0	3.6	K670	480
JUN										
27...	1030	155	270	7.5	22.5	500	6.1	5.2	K8300	28000
JUL										
23...	0940	78	525	8.0	23.0	120	7.0	5.0	2300	1700
AUG										
23...	1230	63	570	8.0	21.5	110	8.3	3.9	1200	2000
SEP										
24...	0700	34	503	8.1	16.0	65	8.3	3.0	1600	1600

K Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)
OCT										
18...	22	317	.43	38.5	1.5	.04	1.3	1.3	2.8	.79
NOV										
14...	16	361	.49	38.8	.85	.01	1.2	1.2	2.1	.52
DEC										
14...	26	377	.51	56.0	2.6	.04	.45	.49	3.1	.66
JAN										
08...	27	417	.57	39.7	2.3	.17	.21	.38	2.7	.65
FEB										
06...	17	--	.53	55.4	2.4	.31	.32	.63	3.0	.58
MAR										
06...	9.4	117	.16	695	2.8	1.6	3.5	5.1	7.9	.93
APR										
03...	15	242	.33	92.8	1.7	.72	1.4	2.1	3.8	.87
MAY										
02...	8.0	148	.20	416	2.1	.73	--	--	--	1.4
29...	17	335	.46	69.6	1.8	.03	.82	.85	2.6	.68
JUN										
27...	13	172	.23	71.8	4.0	.24	4.0	4.2	8.2	.53
JUL										
23...	24	342	.47	72.0	2.0	.03	2.1	2.1	4.1	.94
AUG										
23...	23	--	.48	59.5	1.9	.11	1.1	1.2	3.1	1.0
SEP										
24...	15	323	.44	30.2	1.6	.02	.92	.94	2.5	.74

06880800 WEST FORK BIG BLUE RIVER NEAR DORCHESTER, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L CACO3) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LINITY (MG/L AS CACO3) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)
NOV 14...	1100	230	1	71	13	33	.9	7.1	230	52
FEB 06...	0945	240	0	76	13	35	1.0	7.3	260	50
MAY 29...	1215	210	17	63	12	28	.8	9.8	190	54
AUG 23...	1230	200	0	60	12	34	1.0	12	200	59

DATE	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00666)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)
NOV 14...	.2	23	354	1.0	.45	5	0	70	2	0
FEB 06...	.2	32	387	--	.54	--	--	70	--	--
MAY 29...	.3	28	334	1.7	.48	4	200	50	0	0
AUG 23...	.4	29	350	--	.38	--	--	70	--	--

DATE	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MERCURY SUS- PENDED RECOV- ERABLE (UG/L AS HG) (71895)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)
NOV 14...	12	30	--	200	--	--	.0	6	0	10
FEB 06...	--	40	--	420	--	--	--	--	--	--
MAY 29...	1	10	0	90	.1	.1	.0	4	0	10
AUG 23...	--	50	--	40	--	--	--	--	--	--

06881000 BIG BLUE RIVER NEAR CRETE, NE

LOCATION.--Lat 40°35'47", long 96°57'36", in SW1/4SE1/4 sec.3, T.7 N., R.4 E., Saline County, Hydrologic Unit 10270202, on downstream side of right pier of highway bridge, 1.8 mi (2.9 km) south of Missouri Pacific Railroad station in Crete, 3.3 mi (5.3 km) downstream from Walnut Creek, and 3.6 mi (5.8 km) upstream from Squaw Creek.

DRAINAGE AREA.--2,716 mi² (7,034 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1945 to current year. Prior to Oct. 1, 1953, discharge published only for stages above 12.0 ft because of variable backwater from dam downstream until 1952 and diurnal fluctuation from powerplant upstream in 1952-53.

REVISED RECORDS.-- WSP 1919: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,311.7 ft (399.81 m) National Geodetic Vertical Datum of 1929. Prior to Jan. 20, 1954, nonrecording gage at present site and datum.

REMARKS.--Records good except those for winter period, which are poor. Natural flow of stream affected by ground-water and surface-water withdrawals for irrigation and return flow from irrigated areas.

AVERAGE DISCHARGE.--26 years (1953-78), 350 ft³/s (9.912 m³/s), 253,600 acre-ft/yr (0.313 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 27,600 ft³/s (782 m³/s) July 10, 1950, gage height, 28.74 ft (8.760 m); maximum gage height, 29.80 ft (9.083 m) June 16, 1967; minimum daily discharge, 7.4 ft³/s (0.21 m³/s) July 15, 16, 18, Aug. 14, 1976.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,000 ft³/s (85.0 m³/s) and maximum(*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Mar. 8	1100	*7610	216	22.48	6.852	Mar. 23	1100	3860	109	18.19	5.544
Mar. 19	0600	6310	179	21.32	6.498	May 2	2200	4550	129	19.25	5.867

Minimum daily discharge, 15 ft³/s (0.42 m³/s) Oct. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	81	75	107	64	60	405	494	490	161	965	172	216
2	77	73	67	62	62	1060	458	2930	155	592	169	169
3	75	71	54	66	64	5140	425	4070	151	507	154	135
4	72	72	90	70	64	4520	394	3690	148	447	148	117
5	70	71	84	74	68	2840	371	2970	148	536	131	121
6	68	70	76	74	74	3220	338	2770	147	403	135	109
7	62	71	68	74	72	5260	311	2310	147	453	124	96
8	15	71	60	76	70	7290	292	1270	147	558	104	86
9	66	71	60	76	72	7410	272	795	139	394	94	79
10	71	71	66	82	78	7310	259	660	139	269	106	82
11	63	71	81	90	76	6790	257	595	140	211	135	80
12	84	74	81	98	74	6540	266	604	138	178	134	92
13	63	75	84	90	72	6530	265	913	133	162	144	93
14	62	76	88	82	76	6480	258	1160	133	141	147	89
15	85	76	88	80	78	6060	255	1130	122	302	131	92
16	87	77	89	80	70	5450	222	928	113	865	135	85
17	85	82	80	86	62	4330	224	634	112	702	147	80
18	80	84	85	86	66	4450	222	485	109	501	137	80
19	73	85	90	80	70	5760	215	408	108	339	124	74
20	66	63	93	79	76	3330	214	356	109	259	116	71
21	64	58	86	77	80	1760	219	316	107	214	103	67
22	79	83	86	79	86	1790	485	288	107	189	94	64
23	87	97	96	76	84	3640	607	266	120	196	86	63
24	93	94	70	74	86	2990	461	242	166	332	82	61
25	85	97	72	72	90	2130	871	226	195	895	90	59
26	83	90	94	70	100	1410	1250	212	337	721	239	58
27	83	85	90	66	114	1150	821	201	230	381	219	56
28	81	91	84	62	292	926	922	189	704	275	224	56
29	78	117	74	62	---	751	721	181	805	228	192	55
30	78	101	70	60	---	643	566	175	1060	202	154	54
31	77	---	68	60	---	552	---	168	---	186	178	---
TOTAL	2293	2392	2481	2329	2336	117917	12935	31632	6530	12603	4348	2639
MEAN	74.0	79.7	80.0	75.1	83.4	3804	431	1020	218	407	140	88.0
MAX	93	117	107	98	292	7410	1250	4070	1060	965	239	216
MIN	15	58	54	60	60	405	214	168	107	141	82	54
AC-FT	4550	4740	4920	4620	4630	233900	25660	62740	12950	25000	8620	5230

CAL YR 1978 TOTAL 153476 MEAN 420 MAX 10600 MIN 15 AC-FT 304400
WTR YR 1979 TOTAL 200435 MEAN 549 MAX 7410 MIN 15 AC-FT 397600

06881000 BIG BLUE RIVER NEAR CRETE, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1961-63, 1968 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1961 to September 1962, April 1968 to current year.
SEDIMENT RECORDS: October 1961 to September 1962.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 32.5°C July 24, 1977; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 30.0°C Aug. 7, 8; minimum, 0.0°C on many days during winter period.

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (JTU) (00070)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT										
18...	1145	81	723	7.8	10.0	50	9.2	8.0	5000	1440
NOV										
14...	0945	73	610	7.9	4.0	15	11.8	4.8	5000	2000
DEC										
14...	0900	45	895	7.6	.0	8	12.5	4.8	1500	7500
JAN										
09...	1730	151	750	7.6	2.0	5	12.3	6.8	K3200	K10000
FEB										
06...	1245	144	686	7.6	1.0	7	11.3	13	K8100	1280
MAR										
06...	1425	2800	174	7.0	1.0	180	8.2	28	1500	K64000
APR										
03...	0910	555	493	7.9	6.5	130	9.1	6.6	4700	K13000
MAY										
02...	1015	2320	389	7.6	8.0	1200	3.2	9.5	40000	60000
29...	0930	206	575	8.1	20.5	45	12.7	7.5	1170	600
JUN										
27...	1215	246	353	7.6	23.0	600	6.3	12	18000	30000
JUL										
23...	1115	178	512	8.2	24.0	150	6.8	9.2	2600	1500
AUG										
23...	0915	81	590	8.3	21.0	100	7.4	4.6	2000	380
SEP										
24...	0900	55	580	8.2	17.0	65	8.2	15	1600	K1900

K Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)
OCT										
18...	26	441	.60	96.4	3.6	.18	1.8	2.0	5.6	1.7
NOV										
14...	18	401	.55	79.4	1.0	.15	.79	.94	1.9	.60
DEC										
14...	24	444	.60	53.9	2.7	.17	.57	.74	3.4	.66
JAN										
09...	28	461	.63	188	2.3	.52	.37	.89	3.2	.61
FEB										
06...	18	--	.54	154	2.3	.76	.44	1.2	3.5	.59
MAR										
06...	9.2	131	.18	990	2.7	1.6	3.3	4.9	7.6	.76
APR										
03...	16	311	.42	466	1.7	1.2	1.5	2.7	4.4	.92
MAY										
02...	9.3	250	.34	1570	1.9	.30	.68	.98	2.9	1.6
29...	15	356	.48	198	2.0	.17	1.1	1.3	3.3	.70
JUN										
27...	15	225	.31	149	4.1	.08	4.3	4.4	8.5	.57
JUL										
23...	19	311	.42	149	1.0	.17	1.9	2.1	3.1	.86
AUG										
23...	23	--	.49	78.5	1.1	.10	.20	.30	1.4	.87
SEP										
24...	25	391	.53	58.1	1.4	.02	1.4	1.4	2.8	.82

06881000 BIG BLUE RIVER NEAR CRETE, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	ALKALINITY (MG/L AS CACO3) (00410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)
NOV 14...	0945	260	8	77	16	38	1.0	8.6	250	63
FEB 06...	1245	240	0	73	15	38	1.1	8.2	250	63
MAY 29...	0930	240	27	70	15	31	.9	11	210	64
AUG 23...	0915	210	0	62	13	32	1.0	14	210	67

DATE	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	PHOSPHORUS, DISSOLVED (MG/L AS P) (00666)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BARIUM, DISSOLVED (UG/L AS BA) (01005)	BORON, DISSOLVED (UG/L AS B) (01020)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)
NOV 14...	.3	23	397	1.0	.49	5	100	90	2	0
FEB 06...	.2	31	397	--	.53	--	--	70	--	--
MAY 29...	.4	25	366	1.9	.52	4	200	50	0	10
AUG 23...	.4	21	359	--	.23	--	--	80	--	--

DATE	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, DISSOLVED (UG/L AS PB) (01049)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	MERCURY SUSPENDED RECOVERABLE (UG/L AS HG) (71895)	MERCURY DISSOLVED (UG/L AS HG) (71890)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	SILVER, DISSOLVED (UG/L AS AG) (01075)	ZINC, DISSOLVED (UG/L AS ZN) (01090)
NOV 14...	55	30	--	230	--	--	.0	7	0	30
FEB 06...	--	30	--	360	--	--	--	--	--	--
MAY 29...	3	10	0	70	.2	.2	.0	4	0	10
AUG 23...	--	<10	--	70	--	--	--	--	--	--

06881000 BIG BLUE RIVER NEAR CRETE, NE--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	19.5	16.5	11.0	8.5	2.0	1.5	.0	.0	1.0	1.0	2.0	1.5
2	19.0	17.5	12.5	9.5	2.0	1.0	.0	.0	1.5	1.0	2.5	1.5
3	18.0	15.5	14.0	11.5	2.0	1.0	.0	.0	2.0	1.0	2.5	1.5
4	18.0	14.5	14.0	11.0	1.5	1.0	.0	.0	1.5	1.0	2.0	1.0
5	16.5	13.5	13.0	11.0	1.5	1.0	.0	.0	1.0	1.0	2.0	1.5
6	16.0	13.0	11.0	9.0	1.5	1.0	.0	.0	1.5	1.0	2.0	1.5
7	16.0	12.5	9.5	6.5	1.5	.5	.0	.0	1.0	1.0	2.5	2.0
8	19.0	13.5	9.5	7.0	1.0	.5	.0	.0	1.5	1.0	2.0	2.0
9	18.5	16.5	10.5	8.5	.5	.5	2.0	.0	1.0	1.0	2.5	2.0
10	18.5	15.0	10.5	9.5	1.0	.5	2.0	2.0	3.0	1.0	2.0	1.5
11	18.0	15.0	10.0	6.5	2.0	.5	2.0	2.0	3.0	1.5	2.5	1.5
12	17.5	14.5	6.5	5.5	2.0	.0	2.5	2.0	3.5	1.5	3.0	2.5
13	16.5	12.5	8.0	6.0	1.5	.0	2.0	1.5	2.5	1.5	4.0	2.5
14	14.0	11.5	7.0	4.0	2.0	.0	1.5	1.5	3.5	1.5	4.0	3.0
15	13.0	10.5	5.0	3.5	2.0	.5	1.5	1.5	2.5	1.5	3.5	3.0
16	12.5	9.5	4.0	3.0	2.0	.5	1.5	1.5	1.5	1.5	3.0	2.5
17	11.5	8.5	4.0	2.5	1.5	.0	1.5	1.5	2.0	2.0	4.0	3.0
18	11.5	10.0	4.0	2.5	2.5	1.0	2.5	1.5	2.0	2.0	8.0	4.0
19	11.5	8.0	3.0	.5	2.0	1.0	3.0	1.5	4.0	2.0	8.0	7.5
20	12.5	9.0	1.5	.5	1.5	.5	2.0	1.0	3.5	2.0	8.0	7.0
21	14.0	11.0	1.5	1.0	1.5	.5	3.0	1.0	4.5	1.5	7.5	7.5
22	14.5	10.5	1.5	1.0	2.0	.5	3.0	1.0	3.5	2.0	7.5	6.5
23	10.5	8.5	2.0	.5	1.5	.5	2.0	1.0	4.5	1.5	6.5	4.5
24	10.5	8.0	2.0	.5	.0	.0	1.0	1.0	4.0	1.5	5.0	4.0
25	10.5	9.5	1.5	1.0	.0	.0	2.0	1.0	4.0	1.5	4.5	3.5
26	9.5	7.5	1.0	.5	.0	.0	2.5	1.0	4.0	1.5	5.5	4.5
27	10.0	7.5	2.5	.5	.0	.0	2.0	1.0	4.0	2.0	6.0	5.0
28	10.0	7.5	2.5	1.0	.0	.0	1.0	1.0	3.0	1.5	8.5	6.0
29	11.5	8.5	2.5	1.0	.0	.0	1.0	1.0	---	---	10.0	8.0
30	12.0	10.0	2.5	1.0	.0	.0	1.0	1.0	---	---	10.0	9.0
31	12.5	10.5	---	---	.0	.0	1.0	1.0	---	---	9.0	8.0
MONTH	19.5	7.5	14.0	.5	2.5	.0	3.0	.0	4.5	1.0	10.0	1.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	9.5	7.5	14.0	11.5	19.0	16.0	25.0	23.0	27.0	22.5	28.5	25.0
2	7.5	6.0	14.5	12.0	21.0	16.5	24.5	23.5	27.0	24.5	27.5	24.0
3	7.5	6.5	9.5	7.5	21.5	18.0	27.0	23.5	27.5	24.0	27.5	24.5
4	8.5	6.5	12.5	7.5	23.0	18.5	27.0	25.0	29.0	25.5	27.5	24.0
5	9.0	8.0	17.0	12.5	23.0	19.0	25.0	22.5	29.5	25.5	28.5	24.5
6	8.0	6.5	17.5	14.5	23.5	20.5	22.5	20.0	29.5	26.0	28.5	25.5
7	11.0	7.5	19.0	16.5	24.5	20.5	20.0	19.0	30.0	25.5	27.5	22.5
8	11.0	9.5	18.0	16.5	23.5	16.5	20.0	19.5	30.0	26.0	26.0	22.0
9	10.5	8.0	16.0	13.5	16.5	15.0	22.5	19.5	29.5	25.5	25.5	21.0
10	11.0	9.5	11.0	8.5	18.5	13.5	26.0	22.0	28.5	25.0	25.5	21.5
11	9.5	8.5	11.5	7.5	21.0	16.5	28.0	24.5	26.0	21.5	25.5	21.5
12	9.5	9.5	14.5	10.0	23.0	18.5	29.0	25.5	26.0	21.5	25.0	21.0
13	11.5	8.5	17.0	11.0	24.5	20.5	29.0	26.0	25.0	21.5	21.0	17.5
14	14.0	11.5	18.0	12.5	25.0	21.0	29.0	25.5	24.5	20.5	20.5	17.0
15	15.5	13.0	18.0	15.0	25.0	20.5	28.5	24.0	21.5	18.5	19.5	16.0
16	16.0	13.5	17.5	15.0	25.0	21.5	28.0	23.0	20.0	18.5	21.0	17.0
17	16.0	13.5	19.5	17.5	24.0	19.5	24.5	23.0	26.0	20.0	21.0	17.5
18	16.5	13.5	19.5	18.0	22.0	18.0	25.0	22.5	27.0	24.0	21.5	18.0
19	16.5	13.5	18.5	16.5	22.0	20.5	25.5	22.0	28.5	24.5	21.5	17.5
20	16.0	13.0	18.5	17.5	22.0	17.5	26.5	23.0	28.5	25.0	22.0	18.5
21	14.5	10.0	19.0	16.0	25.0	19.5	27.0	24.0	28.0	25.0	21.0	17.5
22	15.0	11.0	19.0	16.5	25.0	21.5	27.0	24.0	27.5	24.0	20.0	16.5
23	15.0	11.5	19.0	16.0	23.5	20.0	26.5	24.0	27.0	23.0	21.5	17.0
24	15.5	12.0	19.0	15.5	22.5	20.0	24.0	22.0	25.0	21.0	22.0	19.0
25	15.0	11.5	19.0	16.0	23.0	20.0	24.0	22.0	26.5	23.0	22.5	18.5
26	13.5	8.5	20.0	17.0	24.5	21.0	26.0	23.5	25.5	22.0	21.5	17.5
27	13.5	6.5	21.5	17.0	25.5	23.0	27.0	24.5	24.5	22.5	23.5	20.0
28	10.5	5.5	23.0	19.0	25.5	20.0	27.5	26.0	26.0	22.0	23.0	19.5
29	9.0	6.0	23.5	20.5	26.5	23.0	28.0	25.5	28.0	24.5	22.0	18.5
30	9.0	8.0	23.5	19.0	25.0	23.5	28.0	26.0	29.0	25.5	23.0	19.0
31	---	---	19.0	16.0	---	---	28.0	25.0	29.0	26.0	---	---
MONTH	16.5	5.5	23.5	7.5	26.5	13.5	29.0	19.0	30.0	18.5	28.5	16.0

06881200 TURKEY CREEK NEAR WILBER, NE

LOCATION.--Lat 40°28'48", long 97°00'43", in NE1/4NE1/4 sec.19, T.6 N., R.4 E., Saline County, Hydrologic Unit 10270204, on left bank near downstream side of bridge on State Highway 41, 2.8 mi (4.5 km) west of Wilber.

DRAINAGE AREA.--460 mi^2 (1,191 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1959 to current year.

REVISED RECORDS.-- WSP 1919: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,322.00 ft (402.946 m) National Geodetic Vertical Datum of 1929. Prior to July 10, 1970 at site 0.2 mi (0.3 km) downstream at same datum.

REMARKS.--Records fair except those for winter period, which are poor. Many diversions above station for irrigation.

AVERAGE DISCHARGE.--20 years, 81.0 ft^3/s (2.294 m^3/s), 58,680 acre-ft/yr (72.4 hm^3/yr); median of yearly mean discharges, 64 ft^3/s (1.812 m^3/s), 46,400 acre-ft/yr (57.2 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,300 ft^3/s (207 m^3/s) Mar. 28, 1960, gage height, 14.92 ft (4.548 m) site then in use; maximum gage height, 17.92 ft (5.462 m) Oct. 12, 1973, from highwater mark. No flow Sept. 20, 21, 24, 1976.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,000 ft^3/s (28.3 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Mar. 4	2100	*3420	96.9	15.47	4.715	Mar. 22	2300	1400	39.6	12.60	3.840
Mar. 18	2000	2000	56.6	13.64	4.157						

Minimum daily discharge, 1.1 ft^3/s (0.031 m^3/s) Oct. 10, 29, Nov. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.8	1.1	5.6	3.2	3.8	500	61	42	14	191	23	18
2	2.2	2.9	5.0	3.5	4.2	1100	60	192	14	102	24	27
3	2.0	1.7	4.5	4.0	3.9	2790	58	380	14	343	21	28
4	2.1	1.8	5.2	3.8	3.7	3130	56	245	13	169	22	13
5	1.6	2.7	5.5	3.5	3.6	3290	53	191	11	350	24	8.0
6	1.5	2.9	5.0	3.8	4.5	2410	50	112	11	388	24	6.3
7	2.1	3.0	4.5	3.6	4.0	1870	47	66	9.7	279	24	6.0
8	2.8	3.2	4.0	3.5	3.9	2190	43	47	8.8	117	24	4.9
9	2.6	3.6	3.9	3.7	4.2	2530	42	38	9.2	65	25	4.2
10	1.1	4.1	4.5	3.8	4.5	2390	41	33	10	46	26	3.8
11	2.3	4.1	4.9	4.0	4.6	1270	42	31	11	36	23	5.6
12	2.8	4.3	4.8	4.3	4.3	474	57	30	12	30	67	7.0
13	2.2	5.0	4.5	3.8	4.3	393	47	29	11	26	111	6.8
14	3.2	5.9	4.7	3.3	4.8	303	44	28	9.9	23	55	7.0
15	2.5	5.8	4.9	4.0	4.5	210	56	26	10	23	33	6.1
16	2.5	5.7	4.7	4.0	3.8	148	47	26	9.7	23	25	5.5
17	2.4	5.9	4.3	4.5	4.4	115	35	24	8.6	23	23	4.8
18	2.4	6.1	4.6	4.8	5.0	992	31	24	8.8	21	25	4.0
19	2.6	6.1	4.4	4.5	5.4	1750	28	23	9.1	22	22	3.3
20	1.9	5.6	4.1	4.8	5.0	1380	26	24	86	21	18	3.0
21	2.3	5.7	4.6	4.5	5.0	644	25	23	76	21	15	3.0
22	2.8	4.7	4.5	5.0	5.0	693	24	22	37	22	11	2.6
23	7.2	4.5	4.3	4.0	5.4	1300	25	21	36	23	12	2.3
24	9.1	5.4	3.5	3.5	6.0	1280	24	20	204	256	11	2.2
25	11	6.1	3.8	4.3	8.0	1330	26	20	389	517	11	2.2
26	5.1	6.4	3.9	4.5	20	499	30	19	220	192	51	2.0
27	2.7	6.8	4.0	4.0	50	216	42	19	96	68	58	1.5
28	1.7	6.6	4.6	3.7	200	146	37	17	257	43	24	1.5
29	1.1	7.6	3.8	3.5	---	108	38	17	220	32	20	1.5
30	1.3	6.0	3.6	3.6	---	83	48	17	115	32	23	2.1
31	1.2	---	3.4	3.3	---	68	---	16	---	25	23	---
TOTAL	91.1	141.3	137.6	122.3	385.8	35602	1243	1822	1940.8	3529	898	193.2
MEAN	2.94	4.71	4.44	3.95	13.8	1148	41.4	58.8	64.7	114	29.0	6.44
MAX	11	7.6	5.6	5.0	200	3290	61	380	389	517	111	28
MIN	1.1	1.1	3.4	3.2	3.6	68	24	16	8.6	21	11	1.5
AC-FT	181	280	273	243	765	70620	2470	3610	3850	7000	1780	383

CAL YR 1978 TOTAL 32208.74 MEAN 88.2 MAX 3380 MIN .94 AC-FT 63890
WTR YR 1979 TOTAL 46106.10 MEAN 126 MAX 3290 MIN 1.1 AC-FT 91450

KANSAS RIVER BASIN

06881200 TURKEY CREEK NEAR WILBER, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966-70, 1973 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	TURBIDITY (JTU) (00070)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L) (00310)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT										
18...	1230	2.8	1340	7.3	12.0	55	7.0	4.9	220	1000
NOV										
14...	1210	4.6	788	7.5	5.0	25	10.6	4.8	K60	1500
DEC										
14...	0800	6.0	708	7.3	.0	7	7.5	2.1	1500	3200
JAN										
09...	0825	11	1060	7.4	.5	5	13.0	2.2	148	K13
FEB										
06...	1100	12	815	7.5	.5	3	7.8	4.4	K21	K55
MAR										
06...	1400	2500	142	7.1	1.0	180	10.4	12	830	K60000
APR										
03...	0955	84	417	7.8	5.0	150	8.0	4.8	K167	1800
MAY										
02...	0940	85	410	7.8	14.0	280	5.8	4.8	6700	22000
29...	1045	17	610	7.8	20.5	30	12.0	4.3	183	248
JUN										
27...	1130	90	133	7.6	22.5	700	6.4	5.2	K14000	K21000
JUL										
23...	1215	21	520	8.0	23.0	65	6.9	5.8	1500	1500
AUG										
23...	0800	10	560	7.7	21.0	80	7.2	4.4	830	680
SEP										
24...	0745	2.0	1370	7.7	16.0	40	7.0	3.5	600	2600

K Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, DISSOLVED (TONS PER AC-FT) (70303)	SOLIDS, DISSOLVED (TONS PER DAY) (70302)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)
OCT										
18...	310	777	1.06	5.87	2.1	.12	1.2	1.3	3.4	.48
NOV										
14...	110	495	.67	6.21	.49	.03	.72	.75	1.2	.62
DEC										
14...	110	588	.80	9.53	.80	.02	.64	.66	1.5	.46
JAN										
09...	140	624	.85	19.0	1.0	.01	.44	.45	1.5	.41
FEB										
06...	83	--	.64	15.2	.78	.16	.27	.43	1.2	.26
MAR										
06...	8.5	122	.17	824	2.3	1.1	3.5	4.6	6.9	.75
APR										
03...	18	247	.34	56.0	.93	.47	1.2	1.7	2.6	.60
MAY										
02...	13	267	.36	61.9	.87	.15	.30	.45	1.3	.72
29...	34	370	.50	17.0	.22	.09	.72	.81	1.0	.48
JUN										
27...	8.1	143	.19	35.0	3.5	.33	.32	.65	4.2	.65
JUL										
23...	36	330	.45	18.7	.08	.03	1.6	1.6	1.7	.58
AUG										
23...	45	--	.45	8.99	.91	.10	1.9	2.0	2.9	.64
SEP										
24...	280	786	1.07	4.41	1.8	.01	.98	.99	2.8	.39

06881200 TURKEY CREEK NEAR WILBER, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L CACO3) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LINITY (MG/L AS CACO3) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)
NOV 14...	1210	210	9	59	15	90	2.7	12	200	56
FEB 06...	1100	210	0	64	13	77	2.3	6.2	220	64
MAY 29...	1045	220	16	65	13	41	1.2	9.3	200	57
AUG 23...	0800	160	9	47	10	42	1.5	12	150	67

DATE	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00666)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)
NOV 14...	.3	23	488	.46	.53	6	100	120	3	0
FEB 06...	.3	29	469	--	.26	--	--	100	--	--
MAY 29...	.4	18	359	.22	.35	6	200	80	0	0
AUG 23...	.3	19	333	--	.64	--	--	70	--	--

DATE	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MERCURY SUS- PENDED RECOV- ERABLE (UG/L AS HG) (71895)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)
NOV 14...	20	240	--	190	--	--	.1	2	0	10
FEB 06...	--	30	--	180	--	--	--	--	--	--
MAY 29...	2	10	0	90	.1	.1	.0	3	0	10
AUG 23...	--	50	--	110	--	--	--	--	--	--

06881500 BIG BLUE RIVER AT BEATRICE, NE

LOCATION.--Lat 40°15'22", long 96°44'47", in SW1/4NW1/4 sec.3, T.3 N., R.6 E., Gage County, Hydrologic Unit 10270202, at left upstream corner of 6th Street and U.S. Highway 77 bridge in Beatrice, 0.7 mi (1.1 km) south of the intersection of U.S. Highways 136 and 77, 1.2 mi (1.9 km) downstream from Indian Creek, and 3.1 mi (5.0 km) upstream from Bear Creek.

DRAINAGE AREA.--3,900 mi² (10,101 km²), of which about 3,830 mi² (9,920 km²) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1910 to September 1915, (monthly discharge only for some periods, published in WSP 1310), 1954, 1960-65, 1967-69, 1971-74 (discharge measurements only), October 1974 to current year. Gage-height records collected 1905-1910, 1916-1974 are in reports of U.S. Weather Bureau.

GAGE.--Water-stage recorder. Datum of gage is 1,219.90 ft (371.826 m) National Geodetic Vertical Datum of 1929. October 1910 to September 1915 non-recording gage at present site and datum.

REMARKS.--Records good except those for winter period, which are poor.

AVERAGE DISCHARGE.--10 years (water years 1911-15, 1975-79), 623 ft³/s (17.64 m³/s), 451,400 acre-ft/yr (0.557 km³/yr); median of yearly mean discharges, 550 ft³/s (15.58 m³/s), 398,000 acre-ft/yr (0.491 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 33,000 ft³/s (935 m³/s) July 23, 1911, gage height, 26.00 ft (7.925 m); minimum daily, 20 ft³/s (0.57 m³/s) Aug. 15, 1976.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since 1902, 49,100 ft³/s (1,390 m³/s) Oct. 12, 1973, gage height, 33.02 ft (10.064 m), from floodmark.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 4,000 ft³/s (113 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Mar. 3	1500	13700	388	*19.87	6.056
Mar. 20	0500	*14100	399	19.60	5.974
Mar. 24	0600	11900	337	17.95	5.471
May 4	0400	4240	120	10.41	3.173
June 28	1200	8000	227	16.29	4.965
July 5	0400	4070	115	10.88	3.316
July 24	2000	5070	144	11.47	3.496

Minimum daily discharge, 80 ft³/s (2.27 m³/s) Feb. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	178	123	187	94	80	4500	1260	771	250	1810	476	229
2	165	130	173	86	130	5000	1130	1820	235	2240	378	268
3	155	124	160	100	120	13300	996	3340	228	1200	380	259
4	145	127	140	120	110	12300	907	4180	221	1520	317	234
5	132	131	154	110	160	11800	855	3950	232	3010	280	206
6	122	136	150	130	180	10600	769	3440	232	1600	248	192
7	106	133	120	120	140	10800	721	3080	232	1180	227	192
8	108	137	100	116	130	10700	661	2600	233	952	224	171
9	111	130	90	120	140	10000	625	1600	228	889	206	165
10	99	133	100	130	160	10700	591	1080	237	691	534	158
11	115	135	116	135	190	10700	590	881	241	520	395	145
12	125	142	130	145	180	9880	587	795	244	481	276	141
13	122	141	130	140	190	8520	593	775	245	448	266	158
14	128	141	125	120	210	8050	572	975	231	421	315	196
15	120	148	140	140	180	7890	512	1240	225	406	302	175
16	123	151	125	145	140	7540	500	1240	234	425	251	155
17	132	154	120	150	170	7040	487	1080	224	985	239	151
18	125	150	140	155	200	8950	461	836	221	854	237	145
19	125	144	135	160	220	13300	441	642	225	624	239	135
20	138	142	140	155	230	13500	389	589	221	473	222	145
21	135	164	150	150	200	8550	395	508	259	398	210	138
22	132	127	160	150	220	5920	410	449	474	351	203	128
23	132	159	150	140	190	11100	472	366	788	368	184	125
24	132	161	130	120	210	11500	719	337	772	2930	180	123
25	135	170	150	122	250	7720	559	333	749	3880	157	122
26	145	170	140	140	400	5210	762	329	805	2370	172	120
27	148	170	130	130	800	3280	1300	289	783	1300	238	115
28	138	170	150	116	2800	2490	957	258	6280	751	336	113
29	132	172	122	106	---	3060	1090	277	3350	512	308	109
30	135	175	110	120	---	2080	975	265	1830	757	275	109
31	131	---	104	100	---	1500	---	254	---	778	237	---
TOTAL	4069	4390	4171	3965	8330	257480	21286	38579	20729	35124	8512	4822
MEAN	131	146	135	128	298	8306	710	1244	691	1133	275	161
MAX	178	175	187	160	2800	13500	1300	4180	6280	3880	534	268
MIN	99	123	90	86	80	1500	389	254	221	351	157	109
AC-FT	8070	8710	8270	7860	16520	510700	42220	76520	41120	69670	16880	9560

CAL YR 1978 TOTAL 333468 MEAN 914 MAX 15300 MIN 90 AC-FT 661400
WTR YR 1979 TOTAL 411457 MEAN 1127 MAX 13500 MIN 80 AC-FT 816100

06881500 BIG BLUE RIVER AT BEATRICE, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--October 1978 to September 1979.

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (JTU) (00070)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT										
19...	1035	125	704	8.4	95.0	30	11.3	16	K150	1640
NOV										
15...	0910	122	717	8.0	5.0	5	12.0	7.0	K186	268
DEC										
12...	1215	81	887	7.6	.0	7	15.4	5.5	K60	K220
JAN										
09...	1540	358	940	7.3	1.0	4	10.4	7.0	--	840
FEB										
08...	1530	182	552	7.3	.0	4	10.3	13	K87000	9900
MAR										
05...	1045	11900	241	7.0	.5	120	9.3	26	20000	880000
19...	1140	13800	135	6.8	8.0	1400	8.8	7.5	K3000	88000
APR										
04...	1715	277	515	7.6	8.0	180	8.7	3.0	1670	10000
MAY										
01...	1640	850	368	7.7	16.0	900	7.0	12	8000	7000
31...	1515	350	655	8.4	19.5	30	12.9	10	200	100
JUN										
28...	1230	7880	129	7.6	20.0	1400	5.6	12	K80000	310000
JUL										
24...	1400	3900	210	7.2	23.0	1200	5.2	15	300000	210000
AUG										
22...	0800	200	640	8.0	24.0	95	7.2	5.2	830	400
SEP										
20...	0840	125	718	8.3	18.0	45	8.3	7.5	800	760

K Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)
OCT										
19...	58	404	.55	136	.40	.03	2.2	2.2	2.6	.60
NOV										
15...	57	460	.63	152	.34	.01	.99	1.0	1.3	.51
DEC										
12...	78	567	.77	124	3.2	.30	.68	.98	4.2	.90
JAN										
09...	85	542	.74	524	3.1	.98	.92	1.9	5.0	1.0
FEB										
08...	39	--	.42	150	2.5	.93	.27	1.2	3.7	.54
MAR										
05...	7.8	--	.14	3370	2.5	1.2	--	--	--	.60
19...	5.4	--	.12	3280	2.1	.64	8.2	8.8	11	1.7
APR										
04...	22	317	.43	237	1.7	.72	1.5	2.2	3.9	.77
MAY										
01...	14	244	.33	560	2.4	.09	4.7	4.8	7.2	1.5
31...	44	423	.58	400	1.3	.03	1.5	1.5	2.8	.58
JUN										
28...	6.0	--	.12	1870	2.8	.40	.70	1.1	3.9	.77
JUL										
24...	10	145	.20	1530	1.9	.23	1.5	1.7	3.6	.92
AUG										
22...	50	--	.52	206	2.1	.05	1.3	1.3	3.4	.89
SEP										
20...	63	425	.58	143	2.1	.07	1.2	1.3	3.4	.87

06881500 BIG BLUE RIVER AT BEATRICE, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	COLOR (PLATINUM-COBALT UNITS) (00080)	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L) (00340)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	BICARBONATE (MG/L AS HCO3) (00440)	CARBONATE (MG/L AS CO3) (00445)
NOV 15...	0910	--	--	250	9	75	15	69	1.9	7.7	--	--
FEB 08...	1530	--	--	160	11	48	10	42	1.4	4.7	--	--
MAR 05...	1045	180	100	54	18	16	3.3	6.4	.4	12	43	0
19...	1140	1300	220	41	7	12	2.7	5.1	.3	10	41	0
MAY 31...	1515	--	--	230	33	70	14	54	1.5	10	--	--
JUN 28...	1230	480	280	36	14	10	2.7	7.7	.6	7.3	27	0
AUG 22...	0800	--	--	190	0	56	12	48	1.5	12	--	--

DATE	ALKALINITY (MG/L AS CACO3) (00410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N) (00607)	NITROGEN,NH4 + ORG. SUSP. TOTAL (MG/L AS N) (00624)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOSPHORUS, DISSOLVED (MG/L AS P) (00666)	ARSENIC TOTAL (UG/L AS AS) (01002)
NOV 15...	240	69	.3	20	459	.34	--	--	--	--	.41	--
FEB 08...	150	51	.1	21	306	--	--	--	--	--	.31	--
MAR 05...	35	15	.2	9.1	105	2.5	.91	--	.00	2.6	.45	5
19...	34	13	.2	8.4	88	2.2	.42	.88	7.5	1.3	.27	18
MAY 31...	200	85	.3	23	427	1.3	--	--	--	--	.42	--
JUN 28...	22	21	.3	8.2	88	2.5	.00	.64	.46	.64	.19	20
AUG 22...	190	63	.3	25	381	--	--	--	--	--	.02	--

DATE	ARSENIC SUSPENDED TOTAL (UG/L AS AS) (01001)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BARIUM, DISSOLVED (UG/L AS BA) (01005)	BORON, DISSOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD) (01027)	CADMIUM SUSPENDED RECOVERABLE (UG/L AS CD) (01026)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) (01034)	CHROMIUM, SUSPENDED RECOV. (UG/L AS CR) (01031)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COBALT, TOTAL RECOVERABLE (UG/L AS CO) (01037)	COBALT, SUSPENDED RECOVERABLE (UG/L AS CO) (01036)
NOV 15...	--	5	0	100	--	--	3	--	--	0	--	--
FEB 08...	--	--	--	40	--	--	--	--	--	--	--	--
MAR 05...	3	2	--	80	1	0	1	20	20	0	4	3
19...	16	2	--	70	0	0	1	40	30	10	15	15
MAY 31...	--	4	100	70	--	--	0	--	--	0	--	--
JUN 28...	18	2	--	200	0	--	--	70	70	0	27	27
AUG 22...	--	--	--	80	--	--	--	--	--	--	--	--

DATE	COBALT, DISSOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOVERABLE (UG/L AS CU) (01042)	COPPER, SUSPENDED RECOVERABLE (UG/L AS CU) (01041)	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOVERABLE (UG/L AS FE) (01045)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE) (01044)	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOVERABLE (UG/L AS PB) (01051)	LEAD, SUSPENDED RECOVERABLE (UG/L AS PB) (01050)	LEAD, DISSOLVED (UG/L AS PB) (01049)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) (01055)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN) (01054)
NOV 15...	--	--	--	4	--	--	40	--	--	--	--	--
FEB 08...	--	--	--	--	--	--	20	--	--	--	--	--
MAR 05...	1	20	10	10	11000	11000	310	24	19	5	410	220
19...	0	190	180	6	58000	58000	240	99	94	5	1200	1200
MAY 31...	--	--	--	4	--	--	10	--	--	2	--	--
JUN 28...	0	80	62	18	79000	79000	250	78	75	3	2600	2600
AUG 22...	--	--	--	--	--	--	50	--	--	--	--	--

06881500 BIG BLUE RIVER AT BEATRICE, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	MERCURY SUSPENDED RECOVERABLE (UG/L AS HG) (71895)	MERCURY DISSOLVED (UG/L AS HG) (71890)	SELENIUM, TOTAL (UG/L AS SE) (01147)	SELENIUM, SUSPENDED TOTAL (UG/L AS SE) (01146)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	SILVER, DISSOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	ZINC, SUSPENDED RECOVERABLE (UG/L AS ZN) (01091)	ZINC, DISSOLVED (UG/L AS ZN) (01090)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
NOV												
15...	200	--	--	.0	--	--	5	0	--	--	10	--
FEB												
08...	250	--	--	--	--	--	--	--	--	--	--	--
MAR												
05...	190	.1	.0	.2	1	1	0	0	60	40	20	30
19...	10	.3	.3	.0	1	1	0	0	230	220	10	71
MAY												
31...	30	.1	.0	.2	--	--	3	0	--	--	10	--
JUN												
28...	20	.2	.1	.1	0	0	0	0	300	280	20	160
AUG												
22...	20	--	--	--	--	--	--	--	--	--	--	--

DATE	TIME	PERTHANE TOTAL (UG/L) (39034)	PCB, DISSOLVED (UG/L) (39517)	PCB, SUSPENDED TOTAL (UG/L) (39518)	PCB, TOTAL (UG/L) (39516)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG) (39519)	ALDRIN, DISSOLVED (UG/L) (39331)	ALDRIN, SUSPENDED TOTAL (UG/L) (39332)	ALDRIN, TOTAL (UG/L) (39330)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG) (39333)	CHLORDANE, DISSOLVED (UG/L) (39352)	CHLORDANE, SUSPENDED TOTAL (UG/L) (39353)
DEC												
12...	1215	--	--	--	--	0	--	--	--	.0	--	--
MAR												
05...	1045	.00	--	--	.0	--	--	--	.00	--	--	--
19...	1140	--	.0	.0	.0	--	.00	.00	.00	--	.0	.0
MAY												
31...	1515	--	--	--	--	0	--	--	--	.0	--	--
JUN												
28...	1230	.00	--	--	.0	--	--	--	.00	--	--	--
AUG												
22...	0800	--	--	--	--	1	--	--	--	.0	--	--

DATE	CHLORDANF, TOTAL (UG/L) (39350)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG) (39351)	DDD, DISSOLVED (UG/L) (39361)	DDD, SUSPENDED TOTAL (UG/L) (39362)	DDD, TOTAL (UG/L) (39360)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG) (39363)	DDE, DISSOLVED (UG/L) (39366)	DDE, SUSPENDED TOTAL (UG/L) (39367)	DDE, TOTAL (UG/L) (39365)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG) (39368)	DDT, DISSOLVED (UG/L) (39371)	DDT, SUSPENDED TOTAL (UG/L) (39372)
DEC												
12...	--	1	--	--	--	.2	--	--	--	.2	--	--
MAR												
05...	.0	--	--	--	.00	--	--	--	.00	--	--	--
19...	.0	--	.00	.00	.00	--	.00	.00	.00	--	.00	.00
MAY												
31...	--	0	--	--	--	.0	--	--	--	.2	--	--
JUN												
28...	.0	--	--	--	.00	--	--	--	.00	--	--	--
AUG												
22...	--	0	--	--	--	.1	--	--	--	.0	--	--

DATE	DDT, TOTAL (UG/L) (39370)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG) (39373)	DIAZINON, DISSOLVED (UG/L) (39572)	DIAZINON, SUSPENDED TOTAL (UG/L) (39573)	DIAZINON, TOTAL (UG/L) (39570)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG) (39571)	DIELDRIN DISSOLVED (UG/L) (39381)	DIELDRIN, SUSPENDED TOTAL (UG/L) (39382)	DIELDRIN TOTAL (UG/L) (39380)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG) (39383)	ENDOSULFAN, TOTAL (UG/L) (39388)	ENDRIN, DISSOLVED (UG/L) (39391)
DEC												
31...	--	.6	--	--	--	.0	--	--	--	.0	--	--
JUN												
28...	.00	--	--	--	.07	--	--	--	.01	--	.00	--
AUG												
22...	--	.1	--	--	--	<.4	--	--	--	.0	--	--

06881500 BIG BLUE RIVER AT BEATRICE, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	ENDRIN, SUS- PENDED TOTAL (UG/L) (39392)	ENDRIN, TOTAL (UG/L) (39390)	ENDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39393)	ETHION, TOTAL (UG/L) (39398)	ETHION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39399)	HEPTA- CHLOR, DIS- SOLVED (UG/L) (39411)	HEPTA- CHLOR, SUS- PENDED TOTAL (UG/L) (39412)	HEPTA- CHLOR, TOTAL (UG/L) (39410)	HEPTA- CHLOR, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39413)	HEPTA- CHLOR EPOXIDE DIS- SOLVED (UG/L) (39421)	HEPTA- CHLOR EPOXIDE SUS- PENDED TOTAL (UG/L) (39422)
DEC											
12...	--	--	.0	--	.0	--	--	--	.0	--	--
MAR											
05...	--	.00	--	.00	--	--	--	.00	--	--	--
19...	.00	.00	--	.00	--	.00	.00	.00	--	.00	.00
MAY											
31...	--	--	.0	--	.0	--	--	--	.0	--	--
JUN											
28...	--	.00	--	.00	--	--	--	.00	--	--	--
AUG											
22...	--	--	.0	--	<.4	--	--	--	.0	--	--

DATE	HEPTA- CHLOR EPOXIDE TOTAL (UG/L) (39420)	HEPTA- CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG) (39423)	LINDANE DIS- SOLVED (UG/L) (39341)	LINDANE SUS- PENDED TOTAL (UG/L) (39342)	LINDANE TOTAL (UG/L) (39340)	LINDANE TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39343)	MALA- THION, DIS- SOLVED (UG/L) (39532)	MALA- THION, SUS- PENDED TOTAL (UG/L) (39533)	MALA- THION, TOTAL (UG/L) (39530)	MALA- THION, TUTAL IN BOT- TOM MA- TERIAL (UG/KG) (39531)	METH- OXY- CHLOR, TOT. IN BOTTOM MATL. (UG/KG) (39481)
DEC											
12...	--	.0	--	--	--	.2	--	--	--	.0	.0
MAR											
05...	.00	--	--	--	.00	--	--	--	.00	--	--
19...	.00	--	.00	.00	.00	--	.00	.00	.00	--	--
MAY											
31...	--	.0	--	--	--	.0	--	--	--	.0	.0
JUN											
28...	.00	--	--	--	.00	--	--	--	.00	--	--
AUG											
22...	--	.0	--	--	--	.0	--	--	--	<.4	.0

DATE	METHYL PARA- THION, DIS- SOLVED (UG/L) (39602)	METHYL PARA- THION, SUS- PENDED TOTAL (UG/L) (39603)	METHYL PARA- THION, TOTAL (UG/L) (39600)	METHYL PARA- THION, TOT. IN BOTTOM MATL. (UG/KG) (39601)	METHYL TRI- THION, TOTAL (UG/L) (39790)	METHYL TRI- THION, TOT. IN BOTTOM MATL. (UG/KG) (39791)	PARA- THION, DIS- SOLVED (UG/L) (39542)	PARA- THION, SUS- PENDED TOTAL (UG/L) (39543)	PARA- THION, TOTAL (UG/L) (39540)	PARA- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39541)	TOX- APHENE, DIS- SOLVED (UG/L) (39401)
DEC											
12...	--	--	--	.0	--	.0	--	--	--	.0	--
MAR											
05...	--	--	.00	--	.00	--	--	--	.00	--	--
19...	.00	.00	.00	--	.00	--	.00	.00	.00	--	0
MAY											
31...	--	--	--	.0	--	.0	--	--	--	.0	--
JUN											
28...	--	--	.00	--	.00	--	--	--	.00	--	--
AUG											
22...	--	--	--	<.4	--	<.4	--	--	--	<.4	--

DATE	TOX- APHENE, SUS- PENDED TOTAL (UG/L) (39402)	TOX- APHENF, TOTAL (UG/L) (39400)	TOXA- PHENE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39403)	TOTAL TRI- THION (UG/L) (39786)	TRI- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39787)	2,4-D, TOTAL (UG/L) (39730)	2,4,5-T TOTAL (UG/L) (39740)	MIREX, DIS- SOLVED (UG/L) (39756)	MIREX, SUS- PENDED TOTAL (UG/L) (39757)	MIREX, TOTAL (UG/L) (39755)	SILVEX, TOTAL (UG/L) (39760)
DEC											
12...	--	--	0	--	.0	--	--	--	--	--	--
MAR											
05...	--	0	--	.00	--	.64	.02	--	--	.00	.00
19...	0	0	--	.00	--	.15	.02	.00	.00	--	.00
MAY											
31...	--	--	0	--	.0	--	--	--	--	--	--
JUN											
28...	--	0	--	.00	--	.00	.00	--	--	.00	.00
AUG											
22...	--	--	0	--	<.4	--	--	--	--	--	--

06881500 BIG BLUE RIVER AT BEATRICE, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)
MAR							
05...	1045	11900	.5	576	18500	53	59
19...	1145	13800	8.0	7760	289000	29	36
JUN							
28...	1130	7880	20.0	5230	111000	52	60

DATE	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70344)	SED. SUSP. FALL DIAM. % FINER THAN .500 MM (70345)	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM (70346)
MAR						
05...	66	86	94	96	99	100
19...	41	57	61	71	78	88
JUN						
28...	85	98	100	--	--	--

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	NUMBER OF SAM-PLING POINTS (00063)	BED MAT. FALL DIAM. % FINER THAN .062 MM (80158)	BED MAT. FALL DIAM. % FINER THAN .125 MM (80159)	BED MAT. FALL DIAM. % FINER THAN .250 MM (80160)	BED MAT. FALL DIAM. % FINER THAN .500 MM (80161)	BED MAT. FALL DIAM. % FINER THAN 1.00 MM (80162)	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM (80171)	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM (80172)
MAR												
05...	1045	11900	4	--	--	0	7	19	93	97	99	100
19...	1145	13800	3	0	1	7	31	52	73	93	99	100
JUN												
28...	1130	7880	4	16	38	62	80	87	99	100	--	--

06882000 BIG BLUE RIVER AT BARNESTON, NE

LOCATION.--Lat 40°03'11", long 96°35'16", in SE1/4NW1/4 sec.13, T.1 N., R.7 E., Gage County, Hydrologic Unit 10270202, near left bank in tailrace of powerplant, 0.8 mi (1.3 km) northwest of Barneston, 2 mi (3 km) upstream from Plum Creek, and 5 mi (8 km) upstream from Nebraska-Kansas State line.

DRAINAGE AREA.--4,444 mi² (11,510 km²), of which about 4,370 mi² (11,318 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--May 1932 to current year.

REVISED RECORDS.--WSP 896: 1932, 1935. WSP 1919: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,164.2 ft (354.85 m) National Geodetic Vertical Datum of 1929. Prior to June 9, 1941, water-stage recorder at site 1 mi (2 km) downstream at datum 0.44 ft (0.134 m) lower. June 9 to Nov. 17, 1941, nonrecording gage at present site and datum.

REMARKS.--Records fair except those for winter period, which are poor. Low flow regulated by powerplant at Barneston, which has pondage of about 1,500 acre-ft (1.85 hm³). No large tributaries between station and Nebraska-Kansas State line. Some pump diversions for irrigation above station. Natural flow of stream affected by ground-water withdrawals for irrigation and return flow from irrigated areas.

AVERAGE DISCHARGE.--47 years, 786 ft³/s (22.26 m³/s), 569,500 acre-ft/yr (0.702 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 57,700 ft³/s (1,630 m³/s) June 9, 1941, gage height, 34.3 ft (10.45 m); minimum daily, 1 ft³/s (0.028 m³/s) Nov. 30, 1945.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 10,000 ft³/s (283 m³/s) and maximum(*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Mar. 3	1345	*26600	753	26.33	8.025	Mar. 23	1330	20500	581	22.83	6.959
Mar. 18	2330	16700	473	20.35	6.203	June 28	1500	19000	538	21.86	6.663

Minimum daily discharge, 106 ft³/s (3.00 m³/s) Dec. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	243	141	228	110	153	9110	1530	1220	366	2930	613	262
2	240	157	217	110	209	8090	1440	3390	349	3160	452	275
3	211	151	147	120	153	23800	1320	4510	333	1890	402	309
4	196	135	106	130	180	19400	1240	4980	331	1310	367	306
5	170	182	133	140	201	14900	1170	4410	309	3770	329	255
6	182	279	165	145	209	14100	1040	3700	311	2160	318	214
7	146	160	137	145	199	14000	951	3230	306	1600	290	211
8	143	150	122	140	201	11500	853	3040	301	1250	274	202
9	194	140	139	140	209	10400	760	2110	286	1140	256	199
10	133	135	144	145	194	11400	724	1390	302	1030	292	193
11	126	135	186	155	211	11300	715	1080	322	773	832	190
12	130	140	169	165	238	11000	702	939	309	562	483	185
13	180	140	163	160	222	10000	715	860	292	457	389	173
14	114	140	172	150	219	9000	689	961	314	397	396	176
15	134	141	118	150	211	8500	655	1340	295	387	408	176
16	144	151	145	160	164	8200	659	1430	274	423	370	176
17	162	204	156	165	196	8000	634	1310	291	806	320	176
18	151	155	213	170	201	11400	591	1050	299	992	285	170
19	114	166	189	180	230	16500	551	786	287	707	306	168
20	137	177	195	185	227	14700	840	698	269	519	320	159
21	120	145	180	190	204	9480	765	634	275	408	242	159
22	132	131	169	190	204	8450	629	550	378	356	236	159
23	193	128	142	185	214	18700	635	493	2280	360	230	148
24	149	166	148	155	428	15300	977	472	1660	2960	205	146
25	152	196	135	160	810	9480	922	441	839	4970	202	146
26	149	321	184	166	1140	5830	856	423	974	2860	196	143
27	150	339	173	139	1260	3720	1700	400	736	1710	208	140
28	115	240	180	153	5860	2810	1390	386	14500	937	363	140
29	141	228	160	160	---	3530	1600	373	6560	585	400	133
30	154	224	130	189	---	3010	1600	367	2570	997	363	128
31	169	---	116	180	---	1860	---	356	---	1220	313	---
TOTAL	4674	5297	4961	4832	14147	327470	28853	47329	36918	43626	10660	5617
MEAN	157	177	160	156	505	10560	962	1527	1231	1407	344	187
MAX	243	339	228	190	5860	23800	1700	4980	14500	4970	832	309
MIN	114	128	106	110	153	1860	551	356	269	356	196	128
AC-FT	9670	10510	9840	9580	28060	649500	57230	93880	73230	86530	21140	11140

CAL YR 1978 TOTAL 510473 MEAN 1399 MAX 21900 MIN 106 AC-FT 1013000
WTR YR 1979 TOTAL 534584 MEAN 1465 MAX 23800 MIN 106 AC-FT 1060000

06883000 LITTLE BLUE RIVER NEAR DEWEESE, NE

LOCATION.--Lat 40°19'58", long 98°04'00", in SE1/4NW1/4 sec.12, T.4 N., R.7 W., Nuckolls County, Hydrologic Unit 10270206, on right bank 10 ft (3 m) downstream from bridge on State Highway 14, 1 mi (2 km) upstream from Walnut Creek, 3.2 mi (5.1 km) southeast of Deweese, and 6 mi (10 km) northwest of Angus.

DRAINAGE AREA.--979 mi² (2,536 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1953 to September 1972, October 1974 to current year.

REVISED RECORDS.--WSP 1919: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,632.67 ft (497.630 m) National Geodetic Vertical Datum of 1929. Prior to May 16, 1957, non-recording gage at present site and datum; May 16, 1957, to Sept. 30, 1972, at site 1,500 ft (460 m) upstream at present datum.

REMARKS.--Records good except those for winter period, which are poor. Natural flow affected by irrigation development above station.

AVERAGE DISCHARGE.--24 years (1954-72, 1975-79), 145 ft³/s (4.106 m³/s), 105,100 acre-ft/yr (0.130 km³/yr); median of yearly mean discharges, 124 ft³/s (3.512 m³/s), 89,800 acre-ft/yr (0.111 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 25,100 ft³/s (711 m³/s) Aug. 31, 1969, gage height, 18.57 ft (5.660 m), at previous site; minimum daily, 6.3 ft³/s (0.18 m³/s) Sept. 7, 1978.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 26, 1951, reached a stage of 14.9 ft (4.54 m), from information by local residents, discharge, 16,000 ft³/s (453 m³/s), based on records for former station at Angus.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,500 ft³/s (42.5 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Mar. 3	1800	3070	86.9	a7.96	2.426	May 3	0330	*4870	138	9.97	3.039
Mar. 7	1600	2780	78.7	a7.60	2.316	May 11	0200	3880	110	8.92	2.719
Mar. 23	0300	3160	89.5	8.08	2.463	June 22	0730	1800	51.0	6.31	1.923

a From graph based on observers readings.

Minimum daily discharge, 2.8 ft³/s (0.079 m³/s) Oct. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	44	53	38	42	353	112	146	79	190	63	57
2	29	45	48	38	42	350	106	2600	77	295	59	48
3	29	45	50	42	44	2400	102	3710	77	200	62	45
4	29	44	54	38	42	1370	98	1200	79	145	62	43
5	30	45	52	36	46	440	93	638	77	133	60	40
6	29	44	46	36	48	386	88	389	75	125	59	92
7	30	45	44	38	44	2170	87	258	74	119	58	157
8	31	46	40	40	40	1890	85	205	72	110	56	100
9	31	46	45	40	42	1400	81	766	83	106	53	66
10	31	46	48	38	50	717	82	2930	79	100	86	50
11	32	44	52	38	48	365	93	3350	72	95	80	43
12	33	44	52	40	45	268	92	1470	71	89	58	40
13	33	44	54	42	45	218	89	719	69	83	53	39
14	34	44	54	42	50	170	86	423	70	78	60	36
15	36	44	56	44	46	147	82	251	67	72	76	35
16	36	44	56	44	40	138	80	189	66	69	77	34
17	37	44	57	46	36	129	80	160	66	154	73	34
18	38	44	57	50	38	127	79	142	66	656	81	35
19	39	43	49	54	46	122	80	127	64	763	69	34
20	41	44	50	54	50	113	88	118	59	348	53	35
21	40	52	54	58	70	108	165	110	58	216	86	35
22	47	61	50	62	100	1460	190	107	721	140	69	35
23	45	55	51	56	600	2990	123	102	238	96	53	35
24	42	51	48	56	550	1620	102	96	238	76	52	36
25	42	52	48	58	450	706	98	91	143	74	45	36
26	42	59	47	52	425	419	251	88	107	65	247	36
27	43	55	47	46	410	263	331	87	100	63	298	36
28	43	54	46	40	395	190	226	83	104	61	225	36
29	44	53	40	40	---	154	249	83	154	68	136	37
30	43	51	36	41	---	128	199	83	162	75	91	37
31	43	---	36	41	---	113	---	81	---	69	70	---
TOTAL	1130	1432	1520	1388	3884	21424	3717	20802	3467	4933	2670	1422
MEAN	36.5	47.7	49.0	44.8	139	691	124	671	116	159	86.1	47.4
MAX	47	61	57	62	600	2990	331	3710	721	763	298	157
MIN	28	43	36	36	36	108	79	81	58	61	45	34
AC-FT	2240	2840	3010	2750	7700	42490	7370	41260	6880	9780	5300	2820

CAL YR 1978 TOTAL 38998.7 MEAN 107 MAX 3040 MIN 6.3 AC-FT 77350
WTR YR 1979 TOTAL 67789.0 MEAN 186 MAX 3710 MIN 28 AC-FT 134500

06883000 LITTLE BLUE RIVER NEAR DEWEESE, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1959-1970, 1975 to current year.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 469 micromhos Feb. 16; minimum daily, 82 micromhos May 4.
WATER TEMPERATURES: maximum, 27.0°C July 13, 14, Sept. 9; minimum, 2.0°C Feb. 24.

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	COLOR (PLATINUM-COBALT UNITS) (00080)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)
OCT 23...	1520	44	438	--	12.0	--	--	--	--	--
NOV 20...	1650	46	458	--	.0	--	--	--	--	--
DEC 18...	1730	57	455	--	4.0	--	--	--	--	--
JAN 15...	1750	44	470	--	.0	--	--	--	--	--
31...	0915	41	473	7.5	.0	--	--	--	190	0
FEB 26...	1715	395	180	7.2	.5	--	7500	65000	59	4
MAR 28...	1745	181	280	7.5	13.0	--	40000	K210000	99	0
APR 24...	1645	99	450	7.9	20.0	--	K240000	6200	170	30
MAY 21...	1615	109	445	7.9	21.0	--	K20000	220	210	46
JUN 18...	1715	66	500	8.1	26.0	--	K1900	260	210	33
JUL 16...	1730	72	460	8.1	23.0	--	56000	2500	160	0
AUG 29...	0900	143	205	7.6	21.0	--	35000	1600	64	4
SEP 24...	1615	36	425	8.3	23.0	5	K94	K75	210	28

K Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	ALKALINITY (MG/L AS CACO3) (00410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)
OCT 23...	--	--	--	--	--	--	--	--	--	--
NOV 20...	--	--	--	--	--	--	--	--	--	--
DEC 18...	--	--	--	--	--	--	--	--	--	--
JAN 15...	--	--	--	--	--	--	--	--	--	--
31...	60	9.7	19	.6	6.6	190	38	13	.3	33
FEB 26...	17	4.1	4.1	.2	17	55	16	7.7	.2	9.4
MAR 28...	29	6.5	9.3	.4	15	100	24	8.8	.3	19
APR 24...	53	9.2	15	.5	13	140	37	16	.3	25
MAY 21...	66	10	18	.5	9.6	160	40	40	.3	28
JUN 18...	67	11	18	.5	7.9	180	45	11	.4	28
JUL 16...	49	9.5	17	.6	15	170	30	10	.4	28
AUG 29...	19	4.0	6.6	.4	12	60	16	5.8	.4	16
SEP 24...	65	11	19	.6	8.8	180	41	9.1	.4	29

06883000 LITTLE BLUE RIVER NEAR DEWEESE, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS- SOLVED (TONS PER DAY) (70302)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00666)	BORON, DIS- SOLVED (UG/L AS B) (01020)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)
OCT									
23...	--	--	--	--	--	--	--	--	--
NOV									
20...	--	--	--	--	--	--	--	--	--
DEC									
18...	--	--	--	--	--	--	--	--	--
JAN									
15...	--	--	--	--	--	--	--	--	--
31...	298	.41	33.0	.99	--	.23	40	20	60
FEB									
26...	126	.17	134	3.7	--	.96	160	880	210
MAR									
28...	178	.24	87.0	1.2	--	.48	80	80	9
APR									
24...	260	.35	69.5	1.6	--	.48	100	400	40
MAY									
21...	314	.43	92.4	1.3	--	.30	70	10	20
JUN									
18...	299	.41	53.3	.55	--	.26	50	10	10
JUL									
16...	265	.36	51.5	.86	--	.01	80	130	160
AUG									
29...	131	.18	50.6	3.4	--	.38	80	170	50
SEP									
24...	292	.40	28.4	.06	.27	.25	40	10	30

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1					---	220	426	259	458	173	412	369
2					---	205	418	268	453	167	404	371
3					---	172	449	85	465	248	406	412
4					---	168	452	82	455	249	408	412
5					---	212	450	132	466	354	431	270
6					---	208	452	138	465	352	427	249
7					---	200	475	271	450	345	430	320
8					---	165	478	111	420	347	374	325
9					---	178	475	109	427	415	367	327
10					---	192	477	107	448	417	374	411
11					---	200	450	180	450	415	385	412
12					---	236	465	182	464	445	385	410
13					441	302	475	180	467	447	408	435
14					439	305	465	173	467	437	403	428
15					487	336	473	171	462	485	410	438
16					489	338	469	302	460	487	396	429
17					430	340	471	378	462	174	397	448
18					411	349	475	380	465	157	402	449
19					412	357	473	428	464	148	402	450
20					409	375	473	427	465	154	403	455
21					413	400	231	457	220	222	278	455
22					428	400	221	450	160	224	275	454
23					157	118	387	453	245	307	414	454
24					152	125	398	443	285	325	418	452
25					181	125	192	452	289	365	420	452
26					178	202	184	450	424	368	187	460
27					182	200	183	453	430	385	180	461
28					180	227	197	458	233	332	255	460
29					---	275	200	458	208	358	258	459
30					---	315	213	460	205	358	263	461
31					---	378	---	455	---	389	264	---

06883000 LITTLE BLUE RIVER NEAR DEWEESE, NE--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1					---	8.0	10.0	12.0	14.0	20.0	23.0	24.0
2					---	8.0	8.0	14.0	18.0	22.0	24.0	25.0
3					---	5.0	11.0	6.0	19.0	23.0	25.0	24.0
4					---	5.0	8.0	10.0	20.0	24.0	25.0	22.0
5					---	7.0	10.0	12.0	20.0	23.0	25.0	25.0
6					---	9.0	10.0	14.0	21.0	16.0	25.0	25.0
7					---	15.0	9.0	14.0	20.0	18.0	25.0	25.0
8					---	14.0	8.0	14.0	18.0	21.0	25.0	26.0
9					---	16.0	8.0	6.0	15.0	22.0	25.0	27.0
10					---	11.0	7.0	5.0	15.0	23.0	25.0	26.0
11					---	12.0	9.0	8.0	17.0	25.0	24.0	20.0
12					---	14.0	9.0	9.0	19.0	26.0	24.0	16.0
13					4.0	15.0	10.0	12.0	22.0	27.0	21.0	15.0
14					5.0	16.0	10.0	14.0	23.0	27.0	19.0	14.0
15					4.0	10.0	12.0	16.0	22.0	23.0	17.0	15.0
16					3.0	11.0	14.0	17.0	18.0	21.0	19.0	16.0
17					4.0	11.0	16.0	19.0	17.0	22.0	22.0	18.0
18					5.0	12.0	15.0	18.0	20.0	25.0	22.0	20.0
19					5.0	9.0	18.0	18.0	24.0	25.0	21.0	20.0
20					6.0	10.0	18.0	17.0	25.0	25.0	20.0	18.0
21					5.0	14.0	18.0	17.0	22.0	24.0	21.0	17.0
22					5.0	12.0	18.0	16.0	18.0	25.0	21.0	17.0
23					4.0	9.0	18.0	14.0	19.0	23.0	20.0	18.0
24					2.0	15.0	19.0	13.0	19.0	21.0	20.0	17.0
25					5.0	14.0	18.0	17.0	20.0	23.0	19.0	18.0
26					6.0	15.0	17.0	19.0	20.0	24.0	18.0	19.0
27					6.0	13.0	17.0	19.0	21.0	23.0	19.0	20.0
28					6.0	10.0	11.0	20.0	20.0	24.0	20.0	19.0
29					---	14.0	12.0	20.0	21.0	25.0	21.0	18.0
30					---	11.0	11.0	15.0	23.0	26.0	22.0	17.0
31					---	14.0	---	14.0	---	22.0	23.0	---

06883570 LITTLE BLUE RIVER NEAR ALEXANDRIA, NE

LOCATION.--Lat 40°12'27",long 97°23'23", in SE1/4SE1/4 sec.23, T.3 N., R.1 W., Thayer County, Hydrologic Unit 10270206, on left bank 750 ft (229 m) upstream from bridge on State Highway 76, 2.7 mi (4.3 km) south of Alexandria, 9.8 mi (15.8 km) downstream from Dry Creek, and 5.7 mi (9.2 km) upstream from Big Sandy Creek.

DRAINAGE AREA.--1,557 mi² (4,033 km²).

PERIOD OF RECORD.--July 1959 to September 1972 (published as "near Gilead"), April 1974 (corrected) to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,359.29 ft (414.312 m) National Geodetic Vertical Datum of 1929. July 1959 to Sept. 30, 1972 at site 2.3 mi (3.7 km) upstream at datum 12.0 ft (3.66 m) higher.

REMARKS.--Records good except those for winter period, which are poor. Natural flow affected by irrigation development above station.

AVERAGE DISCHARGE.--18 years (1959-72, 1974-79), 235 ft³/s (6.655 m³/s), 170,300 acre-ft/yr (0.210 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 25,600 ft³/s (725 m³/s) Mar. 28, 1960, gage height, 17.30 ft (5.273 m), site and datum then in use; minimum daily, 13 ft³/s (0.37 m³/s) Aug. 5, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,000 ft³/s (56.6 m³/s) and maximum (*):

		Discharge		Gage height				Discharge		Gage height	
Date	Time	(ft³/s)	(m³/s)	(ft)	(m)	Date	Time	(ft³/s)	(m³/s)	(ft)	(m)
Mar. 3	unknown	6320	179	a15.60	4.755	Mar. 23	unknown	b*6500	184	unknown	
Mar. 7	unknown	b5400	153	unknown		May 4	0400	3990	113	13.31	4.057
Mar. 18	unknown	b4000	113	unknown		May 11	2100	3610	102	12.90	3.932

a Highwater mark.
b Based on Little Blue River at Fairbury.

Minimum daily discharge, 40 ft³/s (1.13 m³/s) Nov. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	56	54	81	56	52	2100	247	321	127	202	145	129
2	53	54	76	58	54	1400	240	399	126	180	112	103
3	52	54	70	60	54	5000	225	2500	123	308	95	78
4	49	55	74	58	52	2500	204	3200	120	263	75	65
5	48	56	90	58	52	1500	190	1330	113	228	69	55
6	46	55	88	58	54	1400	185	839	108	195	66	51
7	45	54	72	56	56	4000	180	592	106	185	65	51
8	47	55	80	56	58	3500	175	426	107	167	62	118
9	50	58	86	60	58	2000	170	341	120	163	56	175
10	50	57	90	66	58	1200	170	739	132	145	103	126
11	52	55	92	68	60	700	175	3050	131	134	128	84
12	52	55	94	72	60	450	175	3070	121	125	113	65
13	55	59	102	72	60	350	170	1500	116	119	99	64
14	54	56	106	70	60	300	165	938	113	104	82	58
15	55	53	110	70	62	240	165	647	110	100	139	55
16	58	56	112	72	60	210	165	452	107	95	215	52
17	61	65	108	74	56	200	160	349	109	97	147	50
18	62	64	98	76	60	600	160	298	111	159	110	48
19	62	60	104	78	60	2500	163	263	114	617	96	47
20	60	40	102	74	62	900	167	240	114	826	98	45
21	58	79	108	76	64	400	170	212	106	455	101	45
22	69	83	104	76	76	1000	175	195	213	291	110	45
23	72	73	94	70	180	5500	280	181	863	276	108	44
24	70	81	84	58	1000	3000	230	167	734	195	96	45
25	69	84	74	56	860	1500	193	158	445	148	175	45
26	62	117	70	56	740	940	169	151	290	120	202	45
27	59	107	68	54	1000	566	215	145	191	106	195	45
28	58	87	66	54	1600	456	431	139	161	94	547	45
29	57	91	62	54	---	436	362	136	144	90	356	43
30	56	93	56	56	---	324	309	132	153	121	268	44
31	54	---	56	54	---	268	---	132	---	226	184	---
TOTAL	1751	2010	2677	1976	6668	45440	6185	23242	5628	6534	4417	1965
MEAN	56.5	67.0	86.4	63.7	238	1466	206	750	188	211	142	65.5
MAX	72	117	112	78	1600	5500	431	3200	863	826	547	175
MIN	45	40	56	54	52	200	160	132	106	90	56	43
AC-FT	3470	3990	5310	3920	13230	90130	12270	46100	11160	12960	8760	3900

CAL YR 1978 TOTAL 75918 MEAN 208 MAX 7000 MIN 14 AC-FT 150600
WTR YR 1979 TOTAL 108493 MEAN 297 MAX 5500 MIN 40 AC-FT 215200

06884000 LITTLE BLUE RIVER NEAR FAIRBURY, NE

LOCATION.--Lat 40°06'54", long 97°10'13", in NW1/4NE1/4 sec.26, T.2 N., R.2 E., Jefferson County, Hydrologic Unit 10270207, on right bank 20 ft (6 m) downstream from bridge on State Highway 15, 0.8 mi (1.3 km) south of Fairbury, and 5.2 mi (8.4 km) upstream from Rose Creek.

DRAINAGE AREA.--2,350 mi² (6,087 km²).

PERIOD OF RECORD.--May 1908 to September 1915, October 1928 to September 1956 (published as "near Endicott"), October 1956 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1086: 1941(M). WSP 1390: 1908(M), 1912, 1915, 1935, 1939, 1945(M). WSP 1510: 1947 (calendar year figures only). WSP 1919: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,282.19 ft (390.812 m) National Geodetic Vertical Datum of 1929. May 23, 1908, to Sept. 30, 1915, nonrecording gage at present site at different datum. Apr. 26, 1929, to Sept. 24, 1957, nonrecording gage or water-stage recorder at site 3.5 mi (5.6 km) downstream at various datums.

REMARKS.--Records fair except those for winter period, which are poor. Some regulation at low stage by powerplants above station. Natural flow of stream affected by ground-water withdrawals for irrigation and return flow from irrigated areas.

AVERAGE DISCHARGE.--58 years, 370 ft³/s (10.48 m³/s), 268,100 acre-ft/yr (0.331 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 37,800 ft³/s (1,070 m³/s) Oct. 12, 1973, gage height, 18.96 ft (5.779 m); minimum daily, 14 ft³/s (0.40 m³/s) Nov. 22, 1929, discharge measurement.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,000 ft³/s (85.0 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Mar. 3	1900	7670	217	9.77	2.978	May 4	0830	4420	125	7.18	2.188
Mar. 7	2200	6840	194	9.16	2.792	May 12	0400	3740	106	6.54	1.993
Mar. 19	0030	6380	181	8.81	2.685	June 23	-	3800	108	a6.60	2.012
Mar. 23	1730	*9500	269	a10.94	3.335	July 23	2130	3000	85.0	b5.80	1.768

a From graph based on observer reading.
b From highwater mark.

Minimum daily discharge, 66 ft³/s (1.87 m³/s) Nov. 21, Feb. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	86	91	140	70	66	4180	438	381	196	271	215	155
2	88	90	121	72	72	2730	426	690	192	283	171	142
3	88	93	79	78	70	5970	406	1800	185	264	148	126
4	86	94	84	76	68	5980	373	3890	183	345	140	112
5	97	94	110	76	66	2830	348	1840	179	296	131	101
6	89	94	108	74	70	2710	328	1120	174	262	118	103
7	88	97	84	72	72	6220	318	880	169	247	109	93
8	88	98	96	68	76	5880	299	656	174	228	105	92
9	88	98	100	74	72	3750	289	527	181	212	100	123
10	84	98	103	80	76	2410	283	564	190	193	104	118
11	83	99	110	90	78	1610	289	2520	182	181	134	100
12	84	101	116	94	78	1030	289	3500	178	170	134	90
13	76	103	104	92	80	719	289	1870	171	162	142	93
14	78	104	97	90	84	546	283	1130	164	153	133	88
15	80	103	93	88	88	442	268	838	162	153	153	87
16	81	107	87	90	82	362	256	584	160	148	205	86
17	83	117	143	94	84	325	244	434	164	155	212	82
18	71	117	116	96	90	2960	239	363	164	171	166	81
19	69	112	138	102	94	4560	236	322	164	304	133	80
20	84	86	136	90	96	2000	233	298	173	976	121	79
21	84	66	144	68	98	860	231	277	157	632	114	77
22	88	92	140	91	100	2090	232	262	916	458	121	75
23	98	117	138	88	224	8820	272	249	1760	826	121	74
24	94	114	108	90	1840	6600	314	234	1120	618	129	74
25	96	140	92	74	1450	3010	275	225	729	335	129	73
26	98	163	80	76	1100	1550	258	216	466	296	358	70
27	92	163	78	74	1670	1060	250	213	352	220	203	67
28	89	145	76	72	4150	791	366	209	292	192	352	67
29	88	144	74	72	---	812	464	205	258	171	410	67
30	85	144	70	74	---	590	375	202	250	268	279	68
31	88	---	70	72	---	479	---	200	---	222	210	---
TOTAL	2671	3284	3235	2539	12194	83876	9171	26679	9805	9412	5300	2743
MEAN	86.2	109	104	81.9	436	2706	306	861	327	304	171	91.4
MAX	58	163	144	102	4150	8820	464	3890	1760	976	410	155
MIN	69	66	70	68	66	325	231	200	157	148	100	67
AC-FT	5300	6510	6420	5040	24190	166400	18190	52960	19450	18670	10510	5440

CAL YR 1978 TOTAL 134633 MEAN 369 MAX 13000 MIN 47 AC-FT 267000
WTR YR 1979 TOTAL 170929 MEAN 468 MAX 8820 MIN 66 AC-FT 339000

06884025 LITTLE BLUE RIVER AT HOLLENBERG, KS

LOCATION.--Lat 39°58'48", long 97°00'16", NE1/4SW1/4 sec.8, T.1 S., R.4 E., Washington County, Hydrologic Unit 10270207, on right bank and 2 ft (1 m) downstream from bridge on county road, 0.6 mi (1.0 km) west of Hollenberg, and 1.75 mi (2.82 km) downstream from Nebraska-Kansas State line.

DRAINAGE AREA.--2,752 mi^2 (7,128 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1973 to February 1974 (discharge measurements only), March 1974 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,216.10 ft (370.667 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for winter period, which are poor. Discharge measurements made prior to 1974 water year are published in table of miscellaneous sites in WDR KS-73.

AVERAGE DISCHARGE.--5 years, 494 ft^3/s (13.99 m^3/s), 357,900 acre-ft/yr (0.441 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,200 ft^3/s (487 m^3/s) Mar. 15, 1978, gage height, 16.58 ft (5.054 m) from high water mark; minimum daily, 40 ft^3/s (1.13 m^3/s) Dec. 17, 1975.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 12, 1973, reached a stage of 23.07 ft (7.032 m), present datum, from floodmark, discharge not determined.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,000 ft^3/s (85.0 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Mar. 3	1200	11400	323	14.21	4.331	May 4	1300	4380	124	9.38	2.859
Mar. 19	0600	7800	221	12.13	3.697	May 12	1200	3650	103	8.60	2.621
Mar. 24	0530	*11700	331	14.41	4.392	June 23	1930	3640	103	8.59	2.618

Minimum daily discharge, 81 ft^3/s (2.29 m^3/s) Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	145	116	177	122	100	4970	737	444	285	376	378	271
2	142	118	166	125	110	4010	748	1620	282	347	280	235
3	136	121	128	130	110	9940	689	2480	273	305	261	205
4	129	123	132	125	108	7750	656	4100	263	377	214	178
5	117	128	183	120	100	3880	613	2450	255	373	188	158
6	129	135	175	118	104	3050	543	1400	242	495	169	172
7	114	134	116	116	110	6390	512	1110	239	462	151	141
8	116	134	150	114	110	6450	490	861	237	415	141	132
9	116	137	155	120	100	4170	461	691	237	367	135	143
10	114	139	160	125	104	3060	444	599	261	314	155	197
11	117	139	170	135	108	2210	456	1770	251	273	188	161
12	115	144	180	140	114	1620	461	3490	238	247	206	140
13	110	147	190	135	118	1220	452	2320	221	229	198	140
14	104	150	190	125	120	950	424	1380	210	214	208	122
15	98	144	190	120	120	781	408	1100	199	238	200	117
16	98	151	195	125	110	672	384	841	191	205	260	111
17	100	162	200	130	120	605	362	668	189	211	379	109
18	100	160	180	135	125	3640	350	578	190	820	296	103
19	88	153	190	140	130	6610	336	521	192	790	236	100
20	100	150	190	135	135	3930	332	521	204	1140	203	97
21	112	126	200	125	140	1710	321	456	293	865	210	94
22	116	143	190	120	140	2780	310	425	922	543	198	93
23	119	145	180	116	145	10400	318	428	1850	1940	191	92
24	125	151	170	114	1300	10400	404	403	2170	1550	201	89
25	126	178	150	110	3200	4940	365	372	1730	552	219	90
26	126	220	140	110	2400	2350	325	357	757	512	513	90
27	128	216	135	106	3000	1640	300	336	492	349	662	89
28	126	200	130	106	4640	1270	347	324	376	279	381	85
29	129	197	125	106	---	1210	597	315	382	238	655	83
30	131	185	120	104	---	1060	494	303	339	327	478	81
31	115	---	120	102	---	824	---	292	---	482	369	---
TOTAL	3641	4546	5077	3754	17221	114492	13639	32955	13972	15435	8503	3918
MEAN	117	152	164	121	615	3693	455	1063	466	498	274	131
MAX	145	220	200	140	4640	10400	748	4100	2170	1940	662	271
MIN	88	116	116	102	100	605	300	292	189	205	135	81
AC-FT	7220	9020	10070	7450	34160	227100	27050	65370	27710	30620	16870	7770

CAL YR 1978 TOTAL 201222 MEAN 551 MAX 16300 MIN 58 AC-FT 399100
WTR YR 1979 TOTAL 237153 MEAN 650 MAX 10400 MIN 81 AC-FT 470400

KANSAS RIVER BASIN

06884025 LITTLE BLUE RIVER AT HOLLENBERG, KS--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water year 1972 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (JTU) (00070)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT										
18...	1435	105	600	8.2	12.5	7	12.3	2.5	K140	K100
NOV										
14...	1515	129	579	8.2	6.0	5	12.8	--	1170	148
DEC										
12...	1050	235	655	7.6	.0	12	12.5	15	766	K350
JAN										
09...	1230	214	650	7.5	1.0	7	9.6	7.5	1567	1040
FEB										
07...	1320	139	650	7.6	.0	8	9.2	16	260	2100
MAR										
05...	1315	3500	188	6.9	1.0	300	12.5	17	K12000	930000
19...	1500	6480	185	7.1	11.0	2200	7.8	13	K7000	148000
APR										
05...	0920	616	579	8.1	8.5	70	8.5	1.5	390	160
MAY										
02...	1500	1940	222	7.5	15.0	1200	7.6	14	K70000	K140000
31...	0930	321	620	8.5	16.5	20	10.6	7.6	95	220
JUN										
28...	1745	373	387	8.1	29.0	210	6.5	8.4	2800	2100
JUL										
24...	1015	2900	175	7.5	23.0	1400	5.9	12	80000	150000
AUG										
22...	1230	170	490	8.3	25.5	120	10.1	3.8	K2400	1400
SEP										
20...	1015	80	624	8.4	17.5	35	12.2	9.2	K100	330

K Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)
OCT										
18...	55	--	--	--	.54	.07	.63	.70	1.2	.28
NOV										
14...	55	368	.50	128	.87	.09	.30	.39	1.3	.29
DEC										
12...	82	--	--	--	1.6	.19	.42	.61	2.2	.30
JAN										
09...	51	--	.54	229	1.6	.20	.34	.54	2.1	.35
FEB										
07...	46	--	.52	143	1.6	.32	.46	.78	2.4	.27
MAR										
05...	7.9	--	.18	1250	3.8	1.0	1.2	2.2	6.0	.65
19...	6.7	--	.15	1980	2.8	.60	12	13	16	2.2
APR										
05...	28	--	.49	595	1.3	.25	.85	1.1	2.4	.43
MAY										
02...	10	--	.17	665	1.6	.45	1.3	1.7	3.3	1.2
31...	15	378	.51	328	.02	.03	.97	1.0	1.0	.31
JUN										
28...	22	--	.31	229	1.8	.07	1.8	1.9	3.7	.78
JUL										
24...	5.6	--	.15	846	1.7	.14	2.1	2.2	3.9	.80
AUG										
22...	34	--	.38	127	.50	.16	1.1	1.3	1.8	.66
SEP										
20...	60	380	.52	83.0	.03	.00	1.3	1.3	1.3	.46

06884025 LITTLE BLUE RIVER AT HOLLENBERG, KS--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	COLOR (PLAT-INUM-COBALT UNITS) (00080)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE (MG/L AS HCO3) (00440)	CAR-BONATE (MG/L AS CO3) (00445)
OCT												
18...	1435	--	--	200	--	65	10	51	1.6	6.8	--	--
NOV												
14...	1515	--	--	210	14	69	10	43	1.3	6.4	--	--
DEC												
12...	1050	--	--	210	--	69	10	42	1.3	6.8	--	--
JAN												
09...	1230	--	--	220	13	71	11	46	1.3	6.5	--	--
FEB												
07...	1320	--	--	210	4	69	10	48	1.4	6.3	--	--
MAR												
05...	1315	360	150	76	17	24	4.0	5.5	.3	11	73	0
19...	1500	3800	350	66	1	21	3.4	6.4	.3	4.4	80	0
APR												
05...	0920	--	--	230	27	75	9.7	28	.8	9.9	--	--
MAY												
02...	1500	--	--	73	18	22	4.3	6.7	.3	7.8	--	--
31...	0930	--	--	240	30	78	11	39	1.1	9.2	--	--
JUN												
28...	1745	--	--	100	0	42	--	25	--	12	--	--
JUL												
24...	1015	640	200	64	5	20	3.4	7.8	.4	8.0	72	0
AUG												
22...	1230	--	--	150	0	46	7.6	31	1.1	9.6	--	--
SEP												
20...	1015	30	--	200	3	65	9.8	52	1.6	8.6	--	--

DATE	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N) (00607)	NITRO-GEN,NH4 + ORG. SUSP. TOTAL (MG/L AS N) (00624)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P) (00666)	ARSENIC TOTAL (UG/L AS AS) (01002)
OCT												
18...	200	48	.4	20	--	.58	--	--	--	--	--	--
NOV												
14...	200	47	.3	22	374	.88	--	--	--	--	.26	--
DEC												
12...	200	46	.3	28	--	1.5	--	--	--	--	--	--
JAN												
09...	210	47	.2	31	397	1.6	--	--	--	--	--	--
FEB												
07...	210	46	.2	30	382	--	--	--	--	--	.28	--
MAR												
05...	60	14	.3	11	132	3.9	.72	1.3	.00	2.2	.40	6
19...	66	11	.3	11	113	2.1	.10	1.3	12	1.4	.19	30
APR												
05...	200	59	.3	22	358	1.3	--	--	--	--	--	--
MAY												
02...	55	26	.3	8.6	127	1.6	--	--	--	--	--	--
31...	210	88	.4	19	382	.01	--	--	--	--	.20	--
JUN												
28...	120	26	.4	18	227	1.8	--	--	--	--	--	--
JUL												
24...	59	12	.4	9.0	108	1.3	.14	.96	1.1	1.1	.16	18
AUG												
22...	150	39	.3	19	277	--	--	--	--	--	.66	--
SEP												
20...	200	50	.4	18	384	.00	--	--	--	--	.21	--

06884025 LITTLE BLUE RIVER AT HOLLENBERG, KS--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	ARSENIC SUS- PENDED TOTAL (UG/L AS AS) (01001)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CADMIUM SUS- PENDED RECOV- ERABLE (UG/L AS CD) (01026)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	CHRO- MIUM, SUS- PENDED RECOV. (UG/L AS CR) (01031)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COBALT, TOTAL RECOV- ERABLE (UG/L AS CO) (01037)	COBALT, SUS- PENDED RECOV- ERABLE (UG/L AS CO) (01036)
OCT												
18...	--	--	--	80	--	--	--	--	--	--	--	--
NOV												
14...	--	3	0	80	--	--	1	--	--	0	--	--
DEC												
12...	--	--	--	60	--	--	--	--	--	--	--	--
JAN												
09...	--	--	--	60	--	--	--	--	--	--	--	--
FEB												
07...	--	--	--	80	--	--	--	--	--	--	--	--
MAR												
05...	3	3	--	80	0	0	0	40	40	0	12	12
19...	28	2	--	90	0	0	0	100	90	10	26	26
APR												
05...	--	--	--	60	--	--	--	--	--	--	--	--
MAY												
02...	--	--	--	100	--	--	--	--	--	--	--	--
31...	--	3	200	60	--	--	0	--	--	0	--	--
JUN												
28...	--	--	--	240	--	--	--	--	--	--	--	--
JUL												
24...	17	1	--	70	1	1	0	--	--	0	24	24
AUG												
22...	--	--	--	60	--	--	--	--	--	--	--	--
SEP												
20...	--	--	--	70	--	--	--	--	--	--	--	--

DATE	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	COPPER, SUS- PENDED RECOV- ERABLE (UG/L AS CU) (01041)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	IRON, SUS- PENDED RECOV- ERABLE (UG/L AS FE) (01044)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	LEAD, SUS- PENDED RECOV- ERABLE (UG/L AS PB) (01050)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MANGA- NESE, SUS- PENDED RECOV. (UG/L AS MN) (01054)
OCT												
18...	--	--	--	--	--	--	30	--	--	--	--	--
NOV												
14...	--	--	--	7	--	--	30	--	--	--	--	--
DEC												
12...	--	--	--	--	--	--	10	--	--	--	--	--
JAN												
09...	--	--	--	--	--	--	10	--	--	--	--	--
FEB												
07...	--	--	--	--	--	--	20	--	--	--	--	--
MAR												
05...	0	38	31	7	29000	29000	370	52	52	0	700	680
19...	0	82	77	5	100000	100000	190	99	99	0	2800	2800
APR												
05...	--	--	--	--	--	--	40	--	--	--	--	--
MAY												
02...	--	--	--	--	--	--	170	--	--	--	--	--
31...	--	--	--	3	--	--	10	--	--	2	--	--
JUN												
28...	--	--	--	--	--	--	220	--	--	--	--	--
JUL												
24...	0	73	69	4	--	--	130	84	84	0	1200	1200
AUG												
22...	--	--	--	--	--	--	40	--	--	--	--	--
SEP												
20...	--	--	--	--	--	--	<10	--	--	--	--	--

06884025 LITTLE BLUE RIVER AT HOLLENBERG, KS--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY SUS-PENDED RECOV-ERABLE (UG/L AS HG) (71895)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, SUS-PENDED TOTAL (UG/L AS SE) (01146)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, SUS-PENDED RECOV-ERABLE (UG/L AS ZN) (01091)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
OCT												
18...	30	--	--	--	--	--	--	--	--	--	--	--
NOV												
14...	80	--	--	.0	--	--	4	0	--	--	10	--
DEC												
12...	70	--	--	--	--	--	--	--	--	--	--	--
JAN												
09...	110	--	--	--	--	--	--	--	--	--	--	--
FEB												
07...	160	--	--	--	--	--	--	--	--	--	--	--
MAR												
05...	20	.2	.0	.3	1	1	0	0	120	110	10	44
19...	10	.3	.3	.0	1	1	0	0	360	340	20	110
APR												
05...	30	--	--	--	--	--	--	--	--	--	--	--
MAY												
02...	30	--	--	--	--	--	--	--	--	--	--	--
31...	0	.1	.1	.0	--	--	1	0	--	--	10	--
JUN												
28...	20	--	--	--	--	--	--	--	--	--	--	--
JUL												
24...	0	1.0	.8	.2	--	--	1	0	--	--	10	68
AUG												
22...	4	--	--	--	--	--	--	--	--	--	--	--
SEP												
20...	5	--	--	--	--	--	--	--	--	--	--	--

DATE	TIME	PER-THANE TOTAL (UG/L) (39034)	PCB, DIS-SOLVED (UG/L) (39517)	PCB, SUS-PENDED TOTAL (UG/L) (39518)	PCB, TOTAL (UG/L) (39516)	PCB, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39519)	ALDRIN, DIS-SOLVED (UG/L) (39331)	ALDRIN, SUS-PENDED TOTAL (UG/L) (39332)	ALDRIN, TOTAL (UG/L) (39330)	ALDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39333)	CHLOR-DANE, DIS-SOLVED (UG/L) (39352)	CHLOR-DANE, SUS-PENDED TOTAL (UG/L) (39353)
DEC												
12...	1050	--	--	--	--	0	--	--	--	.0	--	--
MAR												
05...	1315	.00	--	--	.0	--	--	--	.00	--	--	--
19...	1500	--	.0	.0	.0	--	.00	.00	.00	--	.0	.2
APR												
05...	0920	--	--	--	--	0	--	--	--	.0	--	--
MAY												
31...	0930	--	--	--	--	0	--	--	--	.0	--	--
AUG												
22...	1230	--	--	--	--	0	--	--	--	.0	--	--

DATE	CHLOR-DANE, TOTAL (UG/L) (39350)	CHLOR-DANE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39351)	DDD, DIS-SOLVED (UG/L) (39361)	DDD, SUS-PENDED TOTAL (UG/L) (39362)	DDD, TOTAL (UG/L) (39360)	DDD, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39363)	DDE, DIS-SOLVED (UG/L) (39366)	DDE, SUS-PENDED TOTAL (UG/L) (39367)	DDE, TOTAL (UG/L) (39365)	UDE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39368)	DDT, DIS-SOLVED (UG/L) (39371)	DDT, SUS-PENDED TOTAL (UG/L) (39372)
DEC												
12...	--	0	--	--	--	.0	--	--	--	.0	--	--
MAR												
05...	.0	--	--	--	.00	--	--	--	.00	--	--	--
19...	.2	--	.00	.00	.00	--	.00	.00	.00	--	.00	.01
APR												
05...	--	0	--	--	--	.0	--	--	--	.0	--	--
MAY												
31...	--	0	--	--	--	.0	--	--	--	.0	--	--
AUG												
22...	--	0	--	--	--	.0	--	--	--	.0	--	--

06884025 LITTLE BLUE RIVER AT HOLLENBERG, KS--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	DDT, TOTAL (UG/L) (39370)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG) (39373)	DIAZINON, DISSOLVED (UG/L) (39572)	DIAZINON, SUSPENDED TOTAL (UG/L) (39573)	DIAZINON, TOTAL (UG/L) (39570)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG) (39571)	DIELDRIN DISSOLVED (UG/L) (39381)	DIELDRIN, SUSPENDED TOTAL (UG/L) (39382)	DIELDRIN TOTAL (UG/L) (39380)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG) (39383)	ENDOSULFAN, TOTAL (UG/L) (39388)	ENDRIN, DISSOLVED (UG/L) (39391)
DEC												
12...	--	.0	--	--	--	.0	--	--	--	.0	--	--
MAR												
05...	.00	--	--	--	.00	--	--	--	.00	--	.00	--
19...	.01	--	.00	.00	.00	--	.00	.01	.01	--	.00	.00
APR												
05...	--	.0	--	--	--	.0	--	--	--	.0	--	--
MAY												
31...	--	.0	--	--	--	.0	--	--	--	.0	--	--
AUG												
22...	--	.0	--	--	--	<.4	--	--	--	.0	--	--

DATE	ENDRIN, SUSPENDED TOTAL (UG/L) (39392)	ENDRIN, TOTAL (UG/L) (39390)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG) (39393)	ETHION, TOTAL (UG/L) (39398)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG) (39399)	HEPTACHLOR, DISSOLVED (UG/L) (39411)	HEPTACHLOR, SUSPENDED TOTAL (UG/L) (39412)	HEPTACHLOR, TOTAL (UG/L) (39410)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG) (39413)	HEPTACHLOR EPOXIDE DISSOLVED (UG/L) (39421)	HEPTACHLOR EPOXIDE SUSPENDED TOTAL (UG/L) (39422)
DEC											
12...	--	--	.0	--	.0	--	--	--	.0	--	--
MAR											
05...	--	.00	--	.00	--	--	--	.00	--	--	--
19...	.00	.00	--	.00	--	.00	.00	.00	--	.00	.00
APR											
05...	--	--	.0	--	.0	--	--	--	.0	--	--
MAY											
31...	--	--	.0	--	.0	--	--	--	.0	--	--
AUG											
22...	--	--	.0	--	<.4	--	--	--	.0	--	--

DATE	HEPTACHLOR EPOXIDE TOTAL (UG/L) (39420)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG) (39423)	LINDANE DISSOLVED (UG/L) (39341)	LINDANE SUSPENDED TOTAL (UG/L) (39342)	LINDANE TOTAL (UG/L) (39340)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG) (39343)	MALATHION, DISSOLVED (UG/L) (39532)	MALATHION, SUSPENDED TOTAL (UG/L) (39533)	MALATHION, TOTAL (UG/L) (39530)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG) (39531)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG) (39481)
DEC											
12...	--	.0	--	--	--	.0	--	--	--	.0	.0
MAR											
05...	.00	--	--	--	.00	--	--	--	.00	--	--
19...	.00	--	.00	.00	.00	--	.00	.00	.00	--	--
APR											
05...	--	.0	--	--	--	.0	--	--	--	.0	.0
MAY											
31...	--	.0	--	--	--	.0	--	--	--	.0	.0
AUG											
22...	--	.0	--	--	--	.0	--	--	--	<.4	.0

06884025 LITTLE BLUE RIVER AT HOLLENBERG, KS--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	METHYL PARA-THION, DIS-SOLVED (UG/L) (39602)	METHYL PARA-THION, SUS-PENDED TOTAL (UG/L) (39603)	METHYL PARA-THION, TOTAL (UG/L) (39600)	METHYL PARA-THION, TOT. IN BOTTOM MATL. (UG/KG) (39601)	METHYL TRI-THION, TOTAL (UG/L) (39790)	METHYL TRI-THION, TOT. IN BOTTOM MATL. (UG/KG) (39791)	PARA-THION, DIS-SOLVED (UG/L) (39542)	PARA-THION, SUS-PENDED TOTAL (UG/L) (39543)	PARA-THION, TOTAL (UG/L) (39540)	PARA-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39541)	TOX-APHENE, DIS-SOLVED (UG/L) (39401)
DEC											
12...	--	--	--	.0	--	.0	--	--	--	.0	--
MAR											
05...	--	--	.00	--	.00	--	--	--	.00	--	--
19...	.00	.00	.00	--	.00	--	.00	.00	.00	--	0
APR											
05...	--	--	--	.0	--	.0	--	--	--	.0	--
MAY											
31...	--	--	--	.0	--	.0	--	--	--	.0	--
AUG											
22...	--	--	--	<.4	--	<.4	--	--	--	<.4	--

DATE	TOX-APHENE, SUS-PENDED TOTAL (UG/L) (39402)	TOX-APHENE, TOTAL (UG/L) (39400)	TOXA-PHENE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39403)	TOTAL TRI-THION (UG/L) (39786)	TRI-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39787)	2,4-D, TOTAL (UG/L) (39730)	2,4,5-T TOTAL (UG/L) (39740)	MIREX, DIS-SOLVED (UG/L) (39756)	MIREX, SUS-PENDED TOTAL (UG/L) (39757)	MIREX, TOTAL (UG/L) (39755)	SILVEX, TOTAL (UG/L) (39760)
DEC											
12...	--	--	0	--	.0	--	--	--	--	--	--
MAR											
05...	--	0	--	.00	--	.19	.02	--	--	.00	.00
19...	0	0	--	.00	--	.09	.00	.00	.00	--	.00
APR											
05...	--	--	0	--	.0	--	--	--	--	--	--
MAY											
31...	--	--	0	--	.0	--	--	--	--	--	--
AUG											
22...	--	--	0	--	<.4	--	--	--	--	--	--

06884025 LITTLE BLUE RIVER AT HOLLENBERG, KS--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)
MAR							
05...	1420	3500	1.0	2820	26600	37	40
19...	1500	6480	11.0	10700	187000	36	43
JUL							
24...	1100	2900	23.0	4640	36300	32	58

DATE	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70344)	SED. SUSP. FALL DIAM. % FINER THAN .500 MM (70345)	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM (70346)
MAR						
05...	49	84	93	97	100	--
19...	54	88	94	95	97	97
JUL						
24...	74	96	99	100	--	--

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	NUMBER OF SAM-PLING POINTS (00063)	BED MAT. FALL DIAM. % FINER THAN .062 MM (80158)	BED MAT. FALL DIAM. % FINER THAN .125 MM (80159)	BED MAT. FALL DIAM. % FINER THAN .250 MM (80160)	BED MAT. FALL DIAM. % FINER THAN .500 MM (80161)	BED MAT. FALL DIAM. % FINER THAN 1.00 MM (80162)	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM (80171)	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM (80172)
MAR												
05...	1420	3500	6	2	12	17	36	65	81	93	96	100
19...	1500	6480	3	--	0	5	21	52	75	90	97	100
JUL												
24...	1100	2900	4	0	2	24	53	73	83	94	99	100

DISCHARGE AT PARTIAL RECORD STATIONS AND MISCELLANEOUS SITES

The following table contains annual maximum discharges for crest-stage stations. A crest-stage gage is a device which will register the peak stage occurring between inspections of the gage. A stage-discharge relation for each gage is developed from discharge measurements made by indirect measurements of peak flow or by current meter. The date of the maximum discharge is not always certain but is usually determined by comparison with nearby continuous-record stations, weather records, or local inquiry. Only the maximum discharge for each water year is given. Information on some lower floods may have been obtained but is not published herein. The years given in the period of record represent water years for which the annual maximum has been determined.

Annual maximum discharge at crest stage partial record stations during water year 1979

Station No.	Station name	Location	Drainage area (mi²)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (ft³/s)
		Niobrara River basin					
06461300	Big Beaver Creek near Valentine, NE	Lat 42°56'24", long 100°27'25", in SE1/4SE1/4 sec.2, T.34 N., R.27 W., Cherry County, at box culvert under State Highway 12, 7.6 miles northeast of Valentine and 10.2 miles west of Sparks.	24.9	1971-78	05-22-71	11.46	b24
					05-13-72	10.81	b7
					07-28-73	11.33	b20
					05-20-74	11.41	b23
					04-05-75	11.44	b24
					76	---	0
					04-20-77	10.82	b7
					06-25-78	13.72	b115
06465850	Bingham Creek near Niobrara, NE	Lat 42°42'12", long 98°02'54", in NW1/4SW1/4 sec.32, T.32 N., R.6 W., Knox County, at culvert on State Highway 14, 4.7 miles south of Niobrara.	46.5	1968-78	08-29-68	11.40	b40
					04-02-69	10.83	b7
					04-12-70	11.23	b25
					07-05-71	11.71	b50
					06-18-72	11.64	b40
					07-24-73	12.47	b150
		Platte River basin					
06771000	Wood River near Riverdale, NE	Lat 40°47'56", long 99°11'48", in NW1/4NW1/4 sec.31, T.10 N., R.16 W., Buffalo County, at downstream side of State Highway 40, 1.5 miles northwest of Riverdale.	379	1946-73#, 1974-79	07-27-79	8.41	e75
		Kansas River basin					
06838200	Coon Creek at Indianola, NE	Lat 40°14'03", long 100°25'37", in NW1/4NE1/4 sec.13, T.3 N., R.28 W., Red Willow County, at bridge on U.S. Highways 6 and 34, 0.5 mile west of Indianola.	a69	1961-79	08-25-79	5.27	230
06838550	Dry Creek at Bartley, NE	Lat 40°15'02", long 100°19'02", in SW1/4SE1/4 sec.1, T.3 N., R.27 W., Red Willow County, at bridge on U.S. Highway 6 and 34, 0.5 mile west of Bartley.	a42	1961-79	08-25-79	11.58	330
06850000	Turkey Creek at Naponee, NE	Lat 40°04'34", long 99°08'17", in SW1/4SW1/4 sec.4, T.1 N., R.16 W., Franklin County, on downstream side of county bridge at east side of Naponee.	129	1948-53#, 1954-61c 1962-77d 1978-79c	06-05-79	6.90	960
06881450	Indian Creek at Beatrice, NE	Lat 40°17'08", long 96°44'47", in SE1/4NE1/4 sec.28, T.4 N., R.6 E., Gage County, at bridge on U.S. Highway 77 at north edge of Beatrice.	74.7	1960-79	06-28-79	15.20	e2,770

# Operated as a continuous-record gaging station.
a Approximate.
b Not previously published.
c Discharge measurements published in table for miscellaneous sites.
d Discharge measurements published in table for low flow partial record sites.
e Discharge measurement only.

Measurements of streamflow at points other than gaging stations or partial-record stations are given in the following table. Those that are measurements of peak flow are designated by a dagger (†). Some measurements were made during periods of base flow when streamflow is primarily from ground-water storage and may be correlated with the simultaneous discharge of a nearby stream where continuous records are available to give a picture of the low-flow potentiality of the stream.

Discharge measurements made at miscellaneous sites during water year 1979

Stream	Tributary to	Location	Drainage area (mi²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft³/s)
		Niobrara River basin				
Plum Creek † (06462450)	Niobrara River	Lat 42°34'08", long 100°06'22", in NW1/4SE1/4 sec.14, T.30 N., R.24 W., Brown County, at bridge on U.S. Highway 20, 2 miles west of Johnstown.	--	1969-73 1978	06-04-79 08-06-79 09-25-79	23 29 21
Plum Creek † (06462470)	Niobrara River	Lat 42°40'01", long 100°03'26", in SE1/4SE1/4 sec.7, T.31 N., R.23 W., Brown County, at county road bridge 0.2 mile upstream from Sand Draw and 6.5 miles north of Johnstown.	--	1969-73 1978	06-04-79 08-06-79 09-25-79	68 61 60
Long Pine Creek † (06463050)	Niobrara River	Lat 42°32'59", long 99°42'23", in NE1/4NW1/4 sec.30, T.30 N., R.20 W., Brown County, at timber bridge 0.1 mile downstream from bridge on U.S. Highway 20 and 0.9 mile northwest of Long Pine.	--	1978	06-05-79 08-07-79 09-27-79	48 51 53
Bone Creek † (06463090)	Long Pine Creek	Lat 42°32'51", long 99°52'33", in NE1/4NE1/4 sec.27, T.30 N., R.22 W., Brown County, at bridge on U.S. Highway 20, 0.6 mile west of junction of highways 7 and 20 in Ainsworth.	--	1969-73 1978	06-05-79 08-07-79 09-26-79	2.6 2.0 2.0
Sand Draw † (06463290)	Bone Creek	Lat 42°34'08", long 99°58'08", in NE1/4NE1/4 sec.14, T.30 N., R.23 W., Brown County, at bridge on county road 4.5 miles east and 0.7 mile north of Johnstown.	--	1978	06-05-79 08-07-79 09-26-79	1.1 .81 .84
Sand Draw † (06463310)	Bone Creek	Lat 42°38'10", long 99°51'10", in NE1/4NE1/4 sec.26, T.31 N., R.22 W., Brown County, at bridge on county road 8.6 miles south of Meadville and about 4.5 miles upstream from Bone Creek.	--	1978	06-05-79 08-07-79 09-26-79	4.6 5.7 5.1
Bone Creek † (06463350)	Long Pine Creek	Lat 42°40'16", long 99°46'06", in NE1/4SW1/4 sec.10, T.31 N., R.21 W., Brown County, at bridge on U.S. Highway 183, 2.8 miles west and 8.4 miles north of Long Pine.	--	1969-73 1978	06-05-79 08-07-79 09-26-79	60 46 50
Eagle Creek † (06465050)	Niobrara River	Lat 42°38'01", long 98°46'21", in SW1/4NW1/4 sec.30, T.31 N., R.12 W., Holt County, at county road bridge 4.3 miles south and 6 miles west of Midway.	--	1969-78	04-16-79 09-17-79	21 16
East Branch Eagle Creek † (06465100)	Eagle Creek	Lat 42°37'35", long 98°45'49", in SW1/4SE1/4 sec.30, T.31 N., R.12 W., Holt County, at county road bridge 5 miles south and 5.4 miles west of Midway.	--	1969-78	04-16-79 09-17-79	8.6 6.2
Redbird Creek † (06465398)	Niobrara River	Lat 42°39'33", long 98°33'31", in NE1/4SE1/4 sec.14, T.31 N., R.11 W., Holt County, at site 3.2 miles east and 2.7 miles south of Meek.	--	1969-78	04-16-79 09-17-79	17 9.8
Blackbird Creek † (06465420)	Redbird Creek	Lat 42°39'46", long 98°34'24", in SW1/4NW1/4 sec.14, T.31 N., R.11 W., Holt County, at county road bridge 2.4 miles east and 2.3 miles south of Meek.	—	1969-78	04-16-79 09-17-79	8.8 4.0

Discharge measurements made at miscellaneous sites during water year 1979--Continued

Stream	Tributary to	Location	Drainage area (mi²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft³/s)
		Niobrara River basin--Continued				
Verdigre Creek (06465685)	Niobrara River	Lat 42°35'29", long 98°01'49", in SE1/4NE1/4 sec.8, T.30 N., R.6 W., Knox County, at bridge on county road (old State Highway 14) 0.2 mile south of Verdigre.	440	1947-51 1978	10-18-78 11-06-78 12-07-78 12-26-78 01-15-79 02-05-79 02-26-79 03-21-79 04-09-79 05-02-79 05-21-79 06-13-79 07-09-79 07-23-79 08-13-79 09-04-79 09-24-79	92 97 108 94 75 91 95 118 119 114 101 101 64 79 77 79 82
		Platte River basin				
Middle Loup River (06778500)	Loup River	Lat 41°28'49", long 99°12'43", in NE1/4NE1/4 sec.1, T.17 N., R.17 W., Custer County, at bridge on Custer-Valley County line 0.3 miles downstream from diversions for canals 3 and 4 and 5.5 miles southeast of Comstock.	4,650	1969-78	12-14-78	864
Deer Creek [1] (06781530)	Middle Loup	Lat 41°05'37", long 98°42'37", in SE1/4SE1/4 sec.17, T.13 N., R.12 W., Howard County, at upstream side of bridge on county road 1.2 miles north of Boleus.	--	1977-78	05-30-79 07-31-79	.47 1.8
Oak Creek [1] (06784400)	Middle Loup	Lat 41°11'30", long 98°41'25", in SW1/4SW1/4 sec.10, T.14 N., R.12 W., Howard County, at upstream side of bridge on county road 3.6 miles southwest of Farwell.	--	1977-78	05-30-79 07-31-79	18 24
Oak Creek [1] (06784500)	Middle Loup	Lat 41°07'10", long 98°36'45", in NW1/4NW1/4 sec.8, T.13 N., R.11 W., Howard County, at downstream side of bridge on county road 2 miles west of Dannebrog.	--	1949-57 1977-78	05-30-79 07-31-79	25 41
Dry Creek [1] (06784505)	Oak Creek	Lat 41°06'18", long 98°36'16", in NE1/4NW1/4 sec.17, T.13 N., R.11 W., Howard County, at downstream side of bridge on county road 3.3 miles southwest of Dannebrog.	--	1977-78	05-30-79 07-31-79	2.2 4.5
Turkey Creek [1] (06784750)	Middle Loup River	Lat 41°10'48", long 98°36'50", in SE1/4SE1/4 sec.18, T.14 N., R.11 W., Howard County, at upstream side of bridge on county road 3.1 miles north of Nysted.	--	1977-78	05-30-79 07-31-79	17 6.7
Turkey Creek [1] (06764810)	Middle Loup River	Lat 41°09'28", long 98°31'06", in SE1/4NE1/4 sec.25, T.14 N., R.11 W., Howard County, at upstream side of bridge on county road 3.2 miles northeast of Dannebrog.	--	1977-78	05-30-79 07-31-79	9.0 33
Turkey Creek Tributary [1] (06784820)	Turkey Creek	Lat 41°10'55", long 98°29'39", in NW1/4SW1/4 sec.17, T.14 N., R.10 W., Howard County, at downstream side of bridge on county road 3 miles southwest of St Paul.	--	1977-78	05-30-79 07-31-79	.84 3.5
Unnamed Creek [1] (06785020)	Middle Loup River	Lat 41°12'48", long 98°28'35", in SW1/4NW1/4 sec.4, T.14 N., R.10 W., Howard County, at downstream side of bridge on county road near west edge of St Paul.	--	1977-78	05-30-79 07-31-79	.38 5.6
Dane Creek [1] (06788495)	North Loup River	Lat 98°54'01", long 41°36'31", in NE1/4NE1/4 sec.20, T.19 N., R.14 W., Valley County, at bridge on State Highway 11 at northwest edge of Ord.	--	1962a 1977-78	04-16-79 09-23-79	.26 1.8

Discharge measurements made at miscellaneous sites during water year 1979--Continued

Stream	Tributary to	Location	Drainage area (mi²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft³/s)
		Platte River basin--Continued				
Myra Creek [a] (06788990)	North Loup River	Lat 41°29'54", long 98°46'46", in SE1/4SW1/4 sec.26, T.18 N., R.13 W., Valley County, at bridge on State Highway 11 at west edge of North Loup.	--	1977-78	04-16-79 09-21-79	2.7 1.2
Auger Creek [a] (06790245)	North Loup River	Lat 41°17'38", long 98°34'26", in SE1/4SE1/4 sec.4, T.15 N., R.11 W., Howard County, at upstream side of bridge on State Highway 11, 0.5 mile north of Elba.	--	1977-78	05-30-79 07-31-79	1.0 .21
Unnamed Creek [a] (06790255)	North Loup River	Lat 41°16'22", long 98°33'24", in SE1/4NE1/4 sec.15, T.15 N., R.11 W., Howard County, downstream side of bridge on State Highway 11, 0.5 mile southeast of Elba.	—	1977-78	05-30-79 07-31-79	.04 .06
Salt Creek [a] (06801330)	Platte River	Lat 40°38'41", long 96°41'11", in NW1/4SW1/4 sec.19, T.8 N., R.7 E., Lancaster County, at bridge on county road, 1.5 miles southwest of Roca.	--	1971-75, 1976-78b	11-14-78 02-06-79 08-23-79	7.0 7.7 4.2
Salt Creek [a] (06803080)	Platte River	Lat 40°46'13", long 96°43'05", in SW1/4SW1/4 sec.2, T.9 N., R.6 E., Lancaster County, at bridge on county road 0.9 mile west of U.S. Highway 77 and at northwest corner of State Penitentiary, Lincoln.	221	1971-78	10-18-78 11-16-78 02-06-79 03-07-79 05-07-79 05-31-79 06-27-79 07-26-79 08-23-79	30 18 16 2310 102 17 10 50 8.1
Salt Creek [a] (06803190)	Platte River	Lat 40°50'03", long 96°42'03", in NE1/4SE1/4 sec.14, T.10 N., R.6 E., Lancaster County, at bridge at 14th Street at Lincoln, Nebr., 0.3 mile upstream from confluence with Oak Creek and 2.1 miles downstream from Middle Creek.	411	1971-78	11-14-78 02-06-79 05-31-79 08-27-79	22 31 44 45
Oak Creek [a] (06803493)	Salt Creek	Lat 40°50'10", long 96°42'03", in SE1/4NE1/4 sec.14, T.10 N., R.6 E., Lancaster County, at bridge on 14th Street 0.2 mile upstream from confluence with Salt Creek, Lincoln.	258	1971-78	11-14-78 02-06-79 05-31-79 08-27-79	17 12 44 161
Salt Creek [a] (06803525)	Platte River	Lat 40°54'18", long 96°35'09", in NW1/4SW1/4 sec.24, T.11 N., R.7 E., Lancaster County, at bridge 0.5 mile north of Interstate Highway 80 and 3 miles southwest of Waverly.	815	1971-78	10-20-78 11-16-78 02-07-79 05-01-79 06-01-79 06-26-79 07-26-79 08-28-79	84 86 77 264 114 101 254 156
Mill Creek [a] (06805499)	Platte River	Lat 41°00'13", long 96°09'35", in NE1/4SE1/4SE1/4 sec.15, T.12 N., R.11 E., Cass County, at railroad bridge at north edge of Louisville.	--	1973-78	05-15-79	2.5
Cedar Creek [a] (06805525)	Platte River	Lat 41°00'05", long 96°07'15", in SE1/4SE1/4SE1/4 sec.13, T.12 N., R.11 E., Cass County, at bridge on State Highway 66, 2.0 miles east of Louisville.	—	1973-78	05-15-79	7.0
Fourmile Creek [a] (06805565)	Platte River	Lat 41°01'02", long 95°57'46", in SE1/4SW1/4 sec.9, T.12 N., R.13 E., at county road bridge 1 mile north of State Highway 66, 3.25 miles west of Maiden Lane in Plattsmouth, and 3.67 miles upstream from mouth.	--	1975-78	05-15-79	24
		Weeping Water Creek basin				
Weeping Water Creek [a] (06806460) *	Missouri River	Lat 40°51'18", long 96°07'10", in NW1/4NW1/4 sec.7, T.10 N., R.12 E., Cass County, at bridge of Missouri Pacific Railroad just south of north-south road, 1 mile southeast of Weeping Water.	--	1947, 1950-78	05-16-79	28

Discharge measurements made at miscellaneous sites during water year 1979--Continued

Stream	Tributary to	Location	Drainage area (mi²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft³/s)
Weeping Water Creek basin--Continued						
South Branch Weeping Water Creek [1] (06806495)	Weeping Water Creek	Lat 40°48'45", long 95°56'43", in SW1/4SE1/4SW1/4 sec.22, T.10 N., R.13 E., Cass County, at bridge on U.S. Highway 34, 1.1 miles west of Union.	--	1973-78	05-16-79	26
Kansas River basin						
Turkey Creek (06850000) *	Republican River	Lat 40°04'34", long 99°08'17", in SW1/4SW1/4 sec.4, T.1 N., R.16 W., Franklin County, at county road bridge at east side of Naponee, 0.8 mile upstream from mouth.	129	1948-53b, 1954-60a, 1961-78	11-08-78 03-14-79 05-01-79 06-05-79 07-03-79 07-30-79 08-14-79 09-12-79	10 14 15 14 15 14 460 12
Republican River (06853400)	Kansas River	Lat 40°01'22", long 98°06'17", in NE corner SE1/4 sec.28, T.1 N., R.7 W., Nuckolls County, on downstream guard rail of railroad bridge at cement plant, 2.0 miles west of Superior.	22300	1961-65, 1967, 1971-75c, 1977c	08-28-79	892
Big Blue River (06879855)	Kansas River	Lat 41°01'54", long 97°49'33", in NW1/4NW1/4 sec.7, T.12 N., R.4 W., York County, at bridge on county line road 2.5 miles west of Arborville.	--	1970d, 1974-78	07-11-79 08-09-79 09-11-79	0 2.0 0
Lincoln Creek (06879980)	Big Blue River	Lat 40°54'[illegible]3", long 97°49'26", NW1/4SW1/4 sec.19, T.11 N., R.4 W., York County, at bridge on county line 4 miles northeast of Hampton.	--	1969-70, 1974-78	07-11-79 08-09-79 09-11-79	.23 6.[illegible] .36
Lincoln Creek (06879995)	Big Blue River	Lat 40°57'51", long 97°20'44", NE1/4NW1/4 sec.36, T.12 N., R.1 W., Seward County, at county road bridge 4.5 miles north of Utica.	--	1968-70, 1974-78	07-11-79 08-07-79 09-11-79	6.2 4.5 0
West Fork Big Blue River (06880559)	Big Blue River	Lat 40°41'41", long 98°03'06", SW1/4NW1/4 sec.6, T.8 N., R.6 W., Clay County, at county road bridge 3.1 miles northwest of Eldorado.	--	1976-78	07-11-79 08-08-79 09-12-79	7.0 18 12
West Fork Big Blue River (06880610)	Big Blue River	Lat 40°43'28", long 97°50'35", in SW1/4SW1/4 sec.19, T.9 N., R.4 W., Hamilton County, at county road bridge 5.4 miles east of Stockham.	--	1969-70, 1974-78	07-11-79 08-09-79 09-12-79	15 39 22
School Creek (06880745)	West Fork Big Blue River	Lat 40°38'25", long 97°46'58", in NE1/4NE1/4 sec.25, T.8 N., R.5 W., Clay County, at county road bridge on county line 3 miles northeast of Sutton.	--	1974-78	07-13-79 08-08-79 09-12-79	4.7 7.5 2.3
West Fork Big Blue River (06880760)	Big Blue River	Lat 40°47'08", long 97°22'05", in NE1/4NE1/4 sec.1, T.9 N., R.1 W., York County, at bridge on county line 4 miles west of Beaver Crossing.	--	1969-70, 1974-78	07-12-79 08-07-79 09-11-79	54 69 52
Beaver Creek (06880770)	West Fork Big Blue River	Lat 40°51'33", long 97°49'26", in SW1/4SW1/4 sec.6, T.10 N., R.4 W., York County, at bridge on county-line road 4 miles southeast of Hampton.	--	1969-70, 1972-78	07-11-79 08-09-79 09-11-79	.15 8.1 .15
Beaver Creek (06880785)	West Fork Big Blue River	Lat 40°47'49", long 97°20'44", NE1/4SE1/4 sec.25, T.10 N., R.1 W., Seward County, at county road bridge 3.5 miles northwest of Beaver Crossing.	--	1968-70, 1974-78	07-12-79 08-07-79 09-11-79	4.7 12 4.1
Indian Creek (06880788)	West Fork Big Blue River	Lat 40°43'15", long 97°21'53", SE1/4NE1/4 sec.25, T.9 N., R.1 W., Seward County, at bridge on county line 1 mile west of Cordova.	--	1969-70, 1974-78	07-12-79 08-07-79 09-11-79	2.5 2.5 0
Turkey Creek (06881110)	Big Blue River	Lat 40°33'12", long 97°22'05", SW1/4SW1/4 sec.19, T.7 N., R.1 E., Saline County, at bridge on county line 3.7 miles northeast of Milligan.	--	1968-69 1976-78	07-12-79 08-08-79 09-12-79	5.8 15 3.3
Big Sandy Creek (06883583)	Little Blue River	Lat 40°21'02", long 97°52'37", in SW1/4SW1/4 sec.34, T.5 N., R.5 W., Clay County, at county road bridge 4 miles southwest of Ong.	--	1970c, 1974-78	07-12-79 08-08-79 09-12-79	.86 6.1 0

Discharge measurements made at miscellaneous sites during water year 1979--Continued

Stream	Tributary to	Location	Drainage area (mi²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft³/s)
		Kansas River basin--Continued				
Little Sandy Creek (06883590)	Big Sandy Creek	Lat 40°22'56", long 97°49'26", in SE1/4SE1/4 sec.24, T.5 N., R.5 W., Clay County, at county road bridge 1.2 miles southeast of Ong.	--	1970, 1974-78	07-12-79 08-08-79 09-12-79	e2 e4 0
Dry Sandy Creek (06883925)	Big Sandy Creek	Lat 40°21'02", long 97°32'45", SW1/4SE1/4 sec.33, T.5 N., R.2 W., Fillmore County, at bridge on county line 1.4 miles northeast of Bruning.	--	1976-78	07-12-79 08-08-79 09-12-79	1.4 8.4 0

* Also a crest-stage gage.
# Operated as a continuous-record gaging station.
† Also published with additional data elsewhere in this report.
a Gage heights, or gage heights and discharge measurements only.
b Published as a water-quality partial record station.
c Published as a crest stage partial record station.
d Published as a low-flow partial record station.
e Estimate.

LOW-FLOW INVESTIGATIONS

Low-flow investigations were made in the area of the High Plains Regional Aquifer System Analysis (RASA) in Nebraska during the 1979 water year to obtain data on ground-water/surface-water relationships. These data will be used to help calibrate numerical models of the hydrologic system of the area.

PLATTE RIVER BASIN

Wood River and Warm Slough basins

Discharge measurements and observations of zero flow were made on Wood River and its tributaries and on Warm Slough in Buffalo, Hall, and Merrick Counties, Nebr., on November 14, 1978. Conditions were good, as only 0.13 inch of rain fell at Grand Island during the preceding week. Locations are listed in downstream order.

Wood River basin

Location	Observation of zero flow or measured discharge, in cubic feet per second
	November 14, 1978
Wood River 1 mi west of Riverdale in NW¼NW¼ sec. 31, T.10 N., R.16 W.,	0
Tributary to Wood River 2 mi east of Riverdale in SW¼SW¼ sec. 32, T.10 N., R.16 W.	0
Wood River at Riverdale in SW¼SE¼ sec. 31, T.10 N., R.16 W.	0
Wood River 3 mi east of Riverdale in NW¼SW¼ sec. 3, T.9 N., R.16 W.	0
Tributary to Wood River 4 mi north of Kearney in SW¼SW¼ sec. 3, T.9 N., R.16 W.	0
Wood River 3 mi north of Kearney in NW¼SW¼ sec. 11, T.9 N., R.16 W.	0
Tributary to Wood River 5 mi north of Kearney in SW¼SW¼ sec. 11, T.9 N., R.16 W.	0
Tributary to Wood River 4 mi north of Kearney in SE¼NW¼ sec. 13, T.9 N., R.16 W.	0
Wood River 4 mi northeast of Kearney in NW¼SW¼ sec. 8, T.9 N., R.15 W.	0
Wood River 5 mi northeast of Kearney in NW¼NW¼ sec. 15, T.9 N., R.15 W.	0
Tributary to Wood River 5 mi northeast of Kearney in NW¼SW¼ sec. 10, T.9 N., R.15 W.	0
Tributary to Wood River 5 mi northeast of Kearney in SE¼NW¼ sec. 15, T.9 N., R.15 W.	0
Wood River 4 mi northeast of Kearney in SW¼SW¼ sec. 11, T.9 N., R.15 W.	0
Wood River 4 mi northeast of Kearney in NW¼SW¼ sec. 12, T.9 N., R.15 W.	0
Tributary to Wood River 5 mi northeast of Kearney in SW¼NW¼ sec. 12, T.9 N., R.15 W.	.01
Wood River 5 mi west of Gibbon in SW¼NW¼ sec. 17, T.9 N., R.14 W.	0
Wood River 4 mi west of Gibbon in NW¼NW¼ sec. 16, T.9 N., R.14 W.	.05
Wood River 3 mi west of Gibbon in SW¼NW¼ sec. 15, T.9 N., R.14 W.	0
Wood River 2 mi west of Gibbon in SE¼NE¼ sec. 14, T.9 N., R.14 W.	0
Tributary to Wood River 1 mi west of Gibbon in SE¼NE¼ sec. 14, T.9 N., R.14 W.	0
Wood River 1 mi northwest of Gibbon in SW¼SW¼ sec. 7, T.9 N., R.13 W.	0
Wood River 2 mi northwest of Gibbon in NW¼NW¼ sec. 9, T.9 N., R.13 W.	1.5
Wood River 2 mi west of Shelton in NW¼NW¼ sec. 2, T.9 N., R.13 W.	1.0
Wood River at Shelton in SE¼NW¼ sec. 1, T.9 N., R.13 W.	.20
Wood River 2 mi east of Shelton in NW¼NW¼ sec. 32, T.10 N., R.12 W.	.22
Wood River 3 mi northeast of Shelton in NW¼SW¼ sec. 28, T.10 N., R.12 W.	.04
Wood River 1 mi west of Wood River in SW¼NW¼ sec. 24, T.10 N., R.12 W.	.40
Wood River 1 mi north of Wood River in NW¼SW¼ sec. 17, T.10 N., R.11 W.	.43
Wood River 5 mi west of Alda in NW¼NW¼ sec. 15, T.10 N., R.11 W.	.48
Wood River 2 mi west of Alda in NW¼NW¼ sec. 13, T.10 N., R.11 W.	.19
Wood River 1 mi south of Alda in SW¼SW¼ sec. 7, T.10 N., R.10 W.	0
Wood River 2 mi south of Alda in SW¼NW¼ sec. 9, T.10 N., R.10 W.	0
Wood River 3 mi east of Alda in SW¼NW¼ sec. 11, T.10 N., R.10 W.	.17
Wood River 2 mi south of Grand Island in SW¼SW¼ sec. 32, T.11 N., R.9 W.	.09
Wood River 2 mi south of Grand Island in SW¼NW¼ sec. 27, T.11 N., R.9 W.	0
Wood River 2 mi east of Grand Island in NW¼SW¼ sec. 13, T.11 N., R.9 W.	0
Sewer outfall 1 mi east of Grand Island in SW¼NW¼ sec. 14, T.11 N., R.9 W.	0
Wood River 4 mi east of Grand Island in SW¼SW¼ sec. 4, T.11 N., R.8 W.	.33
Wood River 4 mi south of Chapman in SW¼SW¼ sec. 25, T.12 N., R.8 W.	11
Wood River 3 mi south of Chapman in NE¼SE¼ sec. 19, T.12 N., R.7 W.	9.3
	9.6

Warm Slough basin

Location	Observation of zero flow or measured discharge, in cubic feet per second
Warm Slough 2 mi east of Central City in SW¼SW¼ sec. 2, T.13 N., R.6 W.	0
Warm Slough 5 mi northeast of Central City in SW¼SW¼ sec. 31, T.14 N., R.5 W.	0
Warm Slough 7 mi northeast of Central City in SE¼SE¼ sec. 29, T.14 N., R.5 W.	0

PLATTE RIVER BASIN

Middle Loup River basin

Discharge measurements and observations of zero flow were made on the Middle Loup River and tributaries in Cherry, Grant, Hooker, Thomas, Blaine, Custer, Valley, Sherman, and Howard Counties, Nebr., in October 1978. Conditions were good, as only light rain showers totaling 0.10 inch or less occurred in the basin in the preceding week. Locations are listed in downstream order.

Location	Observation of zero flow or measured discharge in cubic feet per second
	October 2-6, 1978
North Branch Middle Loup River 14 mi north of Hyannis in SE¼SW¼ sec. 20, T.26 N., R.37 W.	0
North Branch Middle Loup River 14 mi northeast of Hyannis in NW¼SE¼ sec.23, T.26 N., R.37 W.	.25
North Branch Middle Loup River 10 mi north of Whitman in NE¼SW¼ sec. 33, T.26 N., R.36 W.	1.4
North Branch Middle Loup River 11 mi northeast of Whitman in NW¼NE¼ sec. 5, T.25 N., R.35 W.	2.6
North Branch Middle Loup River 12 mi northwest of Mullen in SW¼NW¼ sec. 12, T.25 N., R.34 W.	18
Middle Branch Middle Loup River 10 mi northeast of Hyannis in SE¼NE¼ sec.15, T.25 N., R.37 W.	0
Middle Branch Middle Loup River 12 mi northeast of Hyannis in SW¼SE¼ sec.12, T.25 N., R.37 W.	.25
Middle Branch Middle Loup River 7 mi north of Whitman in NW¼NW¼ sec. 16, T.25 N., R.36 W.	1.1
Middle Branch Middle Loup River 8 mi northeast of Whitman in SW¼SW¼ sec.12, T.25 N., R.36 W.	0
Middle Branch Middle Loup River 10 mi northeast of Whitman in SE¼SW¼ sec.14, T.25 N., R.35 W.	0
Middle Branch Middle Loup River 12 mi northeast of Whitman in NW¼SE¼ sec.20, T.25 N., R.34 W.	.30
South Branch Middle Loup River 8 mi northwest of Whitman in NE¼SW¼ sec. 11, T.24 N., R.38 W.	0
South Branch Middle Loup River 6 mi northwest of Whitman in NE¼SE¼ sec. 5, T.24 N., R.37 W.	.10
South Branch Middle Loup River 4 mi north of Whitman in SE¼SE¼ sec. 32, T.25 N., R.36 W.	.82
No.Branch of So.Branch Middle Loup R. 9 mi northeast of Hyannis in SW¼NE¼ sec.28,T.25N., R.37W.	0
No.Branch of So.Branch Middle Loup R. 12 mi northeast of Hyannis in SE¼NW¼ sec.25,T.25N.,R.37W.	0
No.Branch of So.Branch Middle Loup R. 15 mi east of Hyannis in SE¼SE¼ sec.29, T.25 N., R.36 W.	0
South Branch Middle Loup River 11 mi northeast of Whitman in SE¼NW¼ sec. 1, T.24 N., R.35 W.	.18
South Branch Middle Loup River 10 mi northwest of Mullen in NE¼NE¼ sec. 3, T.24 N., R.34 W.	1.5
Middle Loup River 4 mi northwest of Mullen in NE¼NE¼ sec. 2, T.24 N., R.33 W.	89
Middle Loup River 2 mi north of Mullen in SE¼NE¼ sec. 8, T.24 N., R.32 W.	115
Middle Loup River 4 mi northeast of Mullen in SE¼SE¼ sec. 11, T.24 N., R.32 W.	151
Middle Loup River 6 mi northeast of Mullen in SW¼SW¼ sec. 17, T.24 N., R.31 W.	187
Middle Loup River 2 mi west of Seneca in SE¼SE¼ sec. 14, T.24 N., R.31 W.	199
Middle Loup River 1 mi east of Seneca in SW¼NW¼ sec. 21, T.24 N., R.30 W.	237
Middle Loup River 6 mi southeast of Seneca in SW¼SW¼ sec. 30, T.24 N., R.29 W.	258
Middle Loup River 5 mi west of Thedford in NW¼NW¼ sec. 10, T.23 N., R.29 W.	292
Middle Loup River 3 mi west of Thedford in SW¼NE¼ sec. 12, T.23 N., R.29 W.	295
Middle Loup River at Thedford in NW¼SW¼ sec. 10, T.23 N., R.28 W.	258
Middle Loup River 3 mi east of Thedford in NW¼SE¼ sec. 12, T.23 N., R.28 W.	285
Middle Loup River 8 mi southeast of Thedford in NW¼SE¼ sec. 22, T.23 N., R.27 W.	330
Middle Loup River 6 mi west of Halsey in SE¼NW¼ sec. 31, T.23 N., R.26 W.	376
Middle Loup River at Halsey in NW¼SW¼ sec. 1, T.22 N., R.26 W.	337
Middle Loup River 3 mi southeast of Halsey in NE¼SE¼ sec. 16, T.22 N., R.25 W.	344
Middle Loup River 4 mi northwest of Dunning in SE¼SW¼ sec. 24, T.22 N., R.25 W.	425
Middle Loup River at Dunning in NW¼SE¼ sec. 33, T.22 N., R.24 W.	418
North Fork Dismal River 9 mi northeast of Lena in NE¼NE¼ sec. 12, T.21 N., R.36 W.	0
North Fork Dismal River 10 mi northeast of Lena in NW¼NE¼ sec. 6, T.21 N., R.35 W.	trace
North Fork Dismal River 18 mi north of Flats in SW¼SW¼ sec. 35, T.22 N., R.35 W.	1.6
North Fork Dismal River 16 mi southwest of Mullen in SE¼NE¼ sec. 34, T.22 N., R.34 W.	20
North Fork Dismal River 13 mi southwest of Mullen in NE¼NE¼ sec. 26, T.22 N., R.33 W.	41
North Fork Dismal River 13 mi south of Mullen in NE¼NE¼ sec. 29, T.22 N., R.32 W.	53
South Fork Dismal River 13 mi north of Flats in NW¼SW¼ sec. 31, T.21 N., R.34 W.	0
South Fork Dismal River 14 mi northeast of Flats in SW¼NE¼ sec. 28, T.21 N., R.34 W.	trace
South Fork Dismal River 13 mi south of Mullen in SE¼NE¼ sec. 29, T.22 N., R.32 W.	29
Dismal River 13 mi south of Mullen in SW¼NW¼ sec. 28, T.22 N., R.32 W.	74
Dismal River 15 mi southeast of Mullen in NE¼SE¼ sec. 30, T.22 N., R.31 W.	103
Dismal River 14 mi south of Seneca in SW¼SW¼ sec. 29, T.22 N., R.30 W.	118
Dismal River 12 mi southwest of Thedford in SE¼NW¼ sec. 10, T.21 N., R.29 W.	143
Dismal River 13 mi south of Thedford in NE¼SE¼ sec. 17, T.21 N., R.28 W.	161
Dismal River 14 mi south of Thedford in SE¼NW¼ sec. 23, T.21 N., R.28 W.	188
Dismal River 10 mi southwest of Halsey in NE¼SE¼ sec. 20, T.21 N., R.26 W.	248
Dismal River 9 mi south of Halsey in NW¼SW¼ sec. 23, T.21 N., R.26 W.	228
Dismal River 9 mi south of Halsey in SW¼NW¼ sec. 24, T.21 N., R.26 W.	272
Dismal River 6 mi west of Dunning in SW¼NW¼ sec. 9, T.21 N., R.25 W.	283
Dismal River 5 mi west of Dunning in NE¼SW¼ sec. 3, T.21 N., R.25 W.	303
Wild Horse Creek 2 mi west of Dunning in NW¼SW¼ sec. 6, T.21 N., R.24 W.	0
Dismal River at Dunning in NW¼NE¼ sec. 4, T.21 N., R.24 W.	304
Middle Loup River 4 mi east of Dunning in SW¼SW¼ sec. 6, T.21 N., R.23 W.	774
Middle Loup River 7 mi east of Dunning in NE¼SW¼ sec. 3, T.21 N., R.23 W.	721
Middle Loup River 10 mi east of Dunning in SE¼SW¼ sec. 7, T.21 N., R.22 W.	770
Middle Loup River 7 mi northwest of Milburn in NW¼NW¼ sec. 23, T.21 N., R.22 W.	824
Rifle Creek 6 mi northwest of Milburn in SW¼SE¼ sec. 23, T.21 N., R.22 W.	0
Sargent Canal 3 mi northwest of Milburn in NW¼NE¼ sec. 32, T.21 N., R.21 W.	0
Middle Loup River 3 mi northwest of Milburn in SE¼NW¼ sec. 32, T.21 N., R.21 W.	796
Middle Loup River at Milburn in NW¼SW¼ sec. 10, T.20 N., R.21 W.	748

PLATTE RIVER BASIN

Middle Loup River basin--Continued

Location	Observation of zero flow or measured discharge, in cubic feet per second
	October 2-6, 1978
River Canyon 2 mi south of Milburn in SW¼SW¼ sec. 15, T.20 N., R.21 W.	0
Middle Loup River 3 mi southeast of Milburn in NE¼SW¼ sec. 23, T.20 N., R.21 W.	778
Victoria Creek 12 mi southwest of Walworth in SE¼NW¼ sec. 31, T.19 N., R.21 W.	0
Victoria Creek 10 mi southwest of Walworth in SW¼SW¼ sec. 16, T.19 N., R.21 W.	1.4
Cedar Canyon 10 mi southwest of Walworth in SE¼NE¼ sec. 17, T.19 N., R.21 W.	.01
Victoria Creek 8 mi southwest of Walworth in SE¼NE¼ sec. 10, T.19 N., R.21 W.	6.9
Victoria Creek 6 mi west of Walworth in SE¼NE¼ sec. 36, T.20 N., R.21 W.	7.6
Dry Creek 5 mi west of Walworth in SE¼SW¼ sec. 31, T.20 N., R.20 W.	0
Middle Loup River 4 mi west of Walworth in SW¼NW¼ sec. 33, T.20 N., R.20 W.	759
Middle Loup River at Walworth in NE¼NW¼ sec. 1, T.19 N., R.20 W.	853
Lillian Creek 8 mi south of Walworth in SW¼SW¼ sec. 10, T.18 N., R.20 W.	0
Lillian Creek 3 mi south of Walworth in SW¼SW¼ sec. 14, T.19 N., R.20 W.	0
Lillian Creek 1 mi south of Walworth in SW¼SE¼ sec. 1, T.19 N., R.20 W.	0
Middle Loup River 2 mi east of Walworth in SW¼SW¼ sec. 4, T.19 N., R.19 W.	779
Winnegar Canyon 2 mi east of Walworth in NW¼NW¼ sec. 4, T.19 N., R.19 W.	0
Tributary to Middle Loup River 3 mi east of Walworth in SW¼NW¼ sec. 9, T.19 N., R.19 W.	0
Tributary to Middle Loup River 4 mi east of Walworth in SE¼NW¼ sec. 10, T.19 N., R.19 W.	0
Middle Loup River 5 mi east of Walworth in NE¼NW¼ sec. 11, T.19 N., R.19 W.	849
Middle Loup River 2 mi west of Sargent in NE¼SE¼ sec. 8, T.19 N., R.18 W.	808
Sand Canyon 1 mi west of Sargent, in SW¼SE¼ sec. 4, T.19 N., R.18 W.	0
Middle Loup River 1 mi south of Sargent in SE¼SE¼ sec. 10, T.19 N., R.18 W.	884
Middle Loup Public Power Canal No. 1, 1 mi south of Sargent in SW¼NW¼ sec. 14, T.19 N., R.18 W.	0
Middle Loup Public Power Canal No. 2, 1 mi south of Sargent in NE¼NW¼ sec. 14, T.19 N., R.18 W.	0
Tributary to Middle Loup River 2 mi southeast of Sargent in SE¼NE¼ sec. 23, T.19 N., R.18 W.	0
Middle Loup River 5 mi northwest of Comstock in NE¼NE¼ sec. 19, T.19 N., R.17 W.	992
Big Oak Canyon 4 mi northwest of Comstock in NE¼NE¼ sec. 21, T.19 N., R.17 W.	0
Wagner Creek 2 mi northwest of Comstock in SW¼SW¼ sec. 33, T.19 N., R.17 W.	.01
Wagner Creek 1 mi northwest of Comstock in NE¼NE¼ sec. 4, T.18 N., R.17 W.	.53
Middle Loup River at Comstock in SW¼SW¼ sec. 2, T.18 N., R.17 W.	882
Middle Loup Public Power Canal No.2 return, 1 mi south of Comstock in SW¼SE¼ sec.11, T.18N.,R.17W.	0
Tributary to Middle Loup River 1 mi south of Comstock in SW¼SW¼ sec. 11, T.18 N., R.17 W.	0
Tributary to Middle Loup River 2 mi south of Comstock in SW¼NE¼ sec. 15, T.18 N., R.17 W.	0
Middle Loup Public Power Canal No.1 return, 4 mi south of Comstock in NE¼SW¼ sec.27, T.18N.,R.17W	0
Spring Creek 4 mi south of Comstock in SW¼SW¼ sec. 26, T.18 N., R.17 W.	0
Sherman Feeder Canal 5 mi south of Comstock in SE¼SW¼ sec. 36, T.18 N., R.17 W.	421
Loup Public Power Canal No. 3, 5 mi northwest of Arcadia in SW¼NW¼ sec. 6, T.17 N., R.16 W.	0
Loup Public Power Canal No. 4, 5 mi northwest of Arcadia in SW¼SW¼ sec. 31, T.18 N., R.16 W.	0
Middle Loup River 5 mi northwest of Arcadia in NW¼NW¼ sec. 6, T.17 N., R.16 W.	374
Tributary to Middle Loup River 5 mi northwest of Arcadia in NW¼NW¼ sec. 7, T.17 N., R.16 W.	0
Cottonwood Creek 4 mi northwest of Arcadia in SW¼SW¼ sec. 4, T.17 N., R.16 W.	0
Lee Creek 1 mi northwest of Arcadia in SE¼NE¼ sec. 21, T.17 N., R.16 W.	0
Middle Loup River at Arcadia in N[illegible]¼NW¼ sec. 26, T.17 N., R.16 W.	355
Tributary to Middle Loup River 1 mi southwest of Arcadia in SE¼SW¼ sec. 27, T.17 N., R.16 W.	0
Hawthorn Creek 2 mi north of Arcadia in NE¼SE¼ sec. 14, T.17 N., R.16 W.	0
Hawthorn Creek at Arcadia in NE¼NE¼ sec. 26, T.17 N., R.16 W.	1.2
Middle Loup River 3 mi southeast of Arcadia in SW¼NE¼ sec. 6, T.16 N., R.15 W.	358
Middle Loup River 7 mi southeast of Arcadia in SW¼SW¼ sec. 21, T.16 N., R.15 W.	362
Hays Creek 5 mi southeast of Arcadia in SE¼SE¼ sec. 5, T.16 N., R.15 W.	0
Hays Creek 7 mi southeast of Arcadia in SW¼SE¼ sec. 16, T.16 N., R.15 W.	.93
Cole Creek 7 mi southeast of Arcadia in SW¼NW¼ sec. 30. T.16 N., R.15 W.	0
Cole Creek 8 mi southeast of Arcadia in SW¼SW¼ sec. 28, T.16 N., R.15 W.	.10
Moon Creek 5 mi west of Loup City in SW¼NW¼ sec. 8, T.15 N., R.15 W.	0
Moon Creek 3 mi northwest of Loup City in NE¼NE¼ sec. 10, T.15 N., R.15 W.	.09
Cob Creek 4 mi southwest of Loup City in NE¼SE¼ sec. 21, T.15 N., R.15 W.	0
Cob Creek 2 mi southwest of Loup City in NE¼NE¼ sec. 25, T.15 N., R.15 W.	.01
Middle Loup River 1 mi south of Loup City in SW¼NW¼ sec. 19, T.15 N., R.14 W.	396
Dead Horse Creek 2 mi northeast of Loup City in NE¼NE¼ sec. 8, T.15 N., R.14 W.	0
Dead Horse Creek 1 mi northeast of Loup City in NW¼NW¼ sec. 17, T.15 N., R.14 W.	0
Dead Horse Creek at Loup City in NE¼SW¼ sec. 18, T.15 N., R.14 W.	.27
Brown Creek 2 mi south of Loup City in SW¼NW¼ sec. 30, T.15 N., R.14 W.	0
Middle Loup Public Power Canal No.3 return 5 mi south of Loup City in SE¼SE¼ sec.6, T.14N.,R.14W.	0
Wiggle Creek 5 mi south of Loup City in SW¼SW¼ sec. 5, T.14 N., R.14 W.	0
Middle Loup River 6 mi southeast of Loup City in NE¼NE¼ sec. 16, T.14 N., R.14 W.	410
Middle Loup Public Power Canal No. 4 return 6 mi southeast of Loup City in SW¼SW¼ sec. 10, T.14 N., R.14 W.	0
Middle Loup River 3 mi northwest of Rockville in NE¼SW¼ sec. 36, T.14 N., R.14 W.	473
Middle Loup River at Rockville in SW¼NW¼ sec. 8, T.13 N., R.13 W.	356
Rock Creek 1 mi north of Rockville in SW¼NW¼ sec. 5, T.13 N., R.13 W.	0
Rock Creek 1 mi north of Rockville in NE¼SW¼ sec. 5, T.13 N., R.13 W.	.01
Middle Loup River 5 mi southeast of Rockville in SE¼NE¼ sec. 25, T.13 N., R.13 W.	358
Middle Loup River 1 mi south of Boelus in NE¼SE¼ sec. 29, T.13 N., R.12 W.	418

PLATTE RIVER BASIN

Middle Loup River tributaries and North Loup River basin

Discharge measurements and observations of zero flow were made on tributaries to the Middle Loup River between Boelus and St. Paul in Sherman and Howard Counties, Nebr., and on the North Loup River and tributaries in Cherry, Blaine, Brown, Rock, Loup, Garfield, Valley, Greeley, and Howard Counties, Nebr., in April 1979. Conditions were good preceding the measurements, as no precipitation fell the previous week. Light rain showers began toward the end of the study and snow fell on April 11 in the northern part of the basin. Measurements above Brewster may show precipitation effect. The locations are listed in downstream order.

Middle Loup River tributaries

Location	Observation of zero flow or measured discharge, in cubic feet per second
	April 10, 1979
Deer Creek 9 mi northwest of Boelus in SW¼NW¼ sec. 16, T.14 N., R.13 W.	0
Deer Creek 5 mi northwest of Boelus in SW¼NW¼ sec. 31, T.14 N., R.12 W.	.06
Deer Creek 3 mi northwest of Boelus in NW¼NW¼ sec. 8, T.13 N., R.12 W.	.55
Deer Creek 1 mi north of Boelus in SW¼SW¼ sec. 16, T.13 N., R.12 W.	.89
Deer Creek 1 mi east of Boelus in NE¼NW¼ sec. 27, T.13 N., R.12 W.	3.9
Oak Creek 6 mi east of Loup City in NE¼SE¼ sec. 7, T.15 N., R.13 W.	7.5
Oak Creek at Ashton in SW¼SE¼ sec. 22, T.15 N., R.13 W.	8.2
Oak Creek 4 mi southeast of Ashton in SE¼NE¼ sec. 8, T.14 N., R.12 W.	13
Oak Creek 2 mi northwest of Nysted in SW¼SE¼ sec. 24, T.14 N., R.12 W.	18
Oak Creek 1 mi south of Nysted in SW¼SW¼ sec. 5, T.13 N., R.11 W.	22
Tributary to Oak Creek 4 mi northwest of Nysted in NW¼NW¼ sec. 34, T.14 N., R.12 W.	0
Tributary to Oak Creek 3 mi west of Nysted in NW¼NW¼ sec. 2, T.13 N., R.12 W.	.04
Tributary to Oak Creek 2 mi south of Nysted in SE¼NE¼ sec. 18, T.13 N., R.11 W.	1.7
Oak Creek 3 mi west of Dannebrog in SE¼SE¼ sec. 8, T.13 N., R.11 W.	29
Oak Creek at Dannebrog in SE¼SW¼ sec. 2, T.13 N., R.11 W.	29
Turkey Creek 7 mi northwest of Farwell in SW¼SE¼ sec. 8, T.15 N., R.12 W.	0
Turkey Creek 3 mi northwest of Farwell in NE¼NE¼ sec. 33, T.15 N., R.12 W.	0
Turkey Creek 3 mi west of Farwell in NW¼NE¼ sec. 3, T.14 N., R.12 W.	1.0
Turkey Creek 3 mi south of Farwell in SE¼SE¼ sec. 19, T.14 N., R.11 W.	3.6
Tributary to Turkey Creek at Farwell in NW¼NE¼ sec. 31, T.15 N., R.11 W.	.01
Turkey Creek 3 mi north of Dannebrog in SW¼NW¼ sec. 26, T.14 N., R.11 W.	11
Turkey Creek 4 mi northeast of Dannebrog in NE¼SE¼ sec. 19, T.14 N., R.10 W.	15

North Loup River basin

Location	Observation of zero flow or measured discharge, in cubic feet per second
	April 9-11, 1979
North Loup River 21 mi north of Whitman in NE¼NE¼ sec. 5, T.27 N., R.36 W.	.44
North Loup River 24 mi northwest of Whitman in SE¼NW¼ sec. 20, T.28 N., R.35 W.	4.5
North Loup River 22 mi northwest of Brownlee in SW¼SE¼ sec. 15, T.28 N., R.32 W.	100
North Loup River 8 mi northwest of Brownlee in NE¼NW¼ sec. 12, T.27 N., R.30 W.	175
Big Horse Creek 21 mi northwest of Brownlee in SW¼NW¼ sec. 2, T.27 N., R.32 W.	4.0
Big Horse Creek 16 mi northwest of Brownlee in NW¼NW¼ sec. 10, T.27 N., R.31 W.	7.1
Horse Creek 15 mi northwest of Brownlee in NW¼SW¼ sec. 14, T.27 N., R.31 W.	4.6
Big Horse Creek 8 mi northwest of Brownlee in SE¼NE¼ sec. 12, T.27 N., R.30 W.	20
Brush Creek 2 mi northwest of Brownlee in SW¼NE¼ sec. 26, T.27 N., R.29 W.	6.8
North Loup River at Brownlee in SE¼NW¼ sec. 30, T.27 N., R.28 W.	256
North Loup River 5 mi east of Brownlee in NW¼SW¼ sec. 25, T.27 N., R.28 W.	289
North Loup River 8 mi southeast of Brownlee in SE¼NE¼ sec. 17, T.26 N., R.27 W.	291
North Loup River 14 mi southeast of Brownlee in SW¼NE¼ sec. 31, T.26 N., R.26 W.	320
Calf Creek 12 mi northwest of Purdum in NE¼SE¼ sec. 17, T.25 N., R.27 W.	2.7
Calf Creek 11 mi northwest of Purdum in SE¼SE¼ sec. 3, T.25 N., R.27 W.	4.0
Calf Creek 9 mi northwest of Purdum in SE¼SW¼ sec. 5, T.25 N., R.26 W.	5.9
North Loup River near Purdum in NW¼NW¼ sec. 8, T.24 N., R.25 W.	368
North Loup River 10 mi southwest of Purdum in SE¼NE¼ sec. 34, T.24 N., R.24 W.	328
Tributary to North Loup River 10 mi southwest of Purdum in NE¼SE¼ sec. 34, T.24 N., R.24 W.	.84
Goose Creek 24 mi northwest of Elsmere in NE¼SE¼ sec. 14, T.28 N., R.28 W.	6.1
Goose Creek 19 mi northwest of Elsmere in SE¼SW¼ sec. 4, T.27 N., R.27 W.	5.7
Goose Creek 14 mi northwest of Elsmere in NW¼NW¼ sec. 19, T.27 N., R.26 W.	20
Goose Creek 10 mi northwest of Elsmere in NE¼NW¼ sec. 35, T.27 N., R.26 W.	24
Goose Creek 6 mi northwest of Elsmere in NW¼SE¼ sec. 8, T.26 N., R.25 W.	32
Goose Creek at Elsmere in NE¼SE¼ sec. 2, T.25 N., R.25 W.	43
Goose Creek 8 mi southeast of Elsmere in SE¼SE¼ sec. 3, T.24 N., R.24 W.	63
North Loup River 6 mi northwest of Brewster in SE¼SE¼ sec. 9, T.23 N., R.23 W.	472
North Loup River at Brewster in NW¼NW¼ sec. 27, T.23 N., R.22 W.	464
North Loup River 9 mi northwest of Almeria in NW¼NE¼ sec. 5, T.22 N., R.20 W.	539
North Loup River 5 mi northwest of Almeria in NE¼NE¼ sec. 23, T.22 N., R.20 W.	606
North Loup River at Almeria in SE¼SW¼ sec. 33, T.22 N., R.19 W.	547
North Loup River at Taylor in NE¼SE¼ sec. 22, T.21 N., R.18 W.	657
North Loup River 4 mi southeast of Taylor in NW¼SW¼ sec. 28, T.21 N., R.17 W.	604
North Loup River 1 mi west of Burwell in SE¼SW¼ sec. 15, T.21 N., R.16 W.	544
Calamus River 15 mi south of Johnstown in SW¼NE¼ sec. 36, T.28 N., R.24 W.	7.3
Tributary to Calamus River 18 mi south of Johnstown in SE¼SE¼ sec. 12, T.27 N., R.24 W.	6.1
Calamus River 21 mi southwest of Ainsworth in NW¼SE¼ sec. 3, T.26 N., R.23 W.	36
Calamus River 17 mi north of Brewster in SW¼NW¼ sec. 34, T.26 N., R.22 W.	68
Calamus River 12 mi northwest of Ovitt in NW¼NE¼ sec. 26, T.25 N., R.21 W.	115
Calamus River 8 mi northwest of Ovitt in NW¼NE¼ sec. 3, T.24 N., R.20 W.	139

PLATTE RIVER BASIN

North Loup River basin--continued

Location	Observation of zero flow or measured discharge, in cubic feet per second
	April 9-11, 1979
Skull Creek tributary 10 mi northwest of Ovitt in SW¼SE¼ sec. 14, T.25 N., R.20 W.	0.52
Skull Creek 10 mi northwest of Ovitt in NE¼NE¼ sec. 23, T.25 N., R.20 W.	5.8
Skull Creek 6 mi northwest of Ovitt in NW¼NE¼ sec. 1, T.24 N., R.20 W.	9.0
Bloody Creek 8 mi northwest of Ovitt in NE¼NW¼ sec. 19, T.25 N., R.19 W.	3.7
Bloody Creek 5 mi northwest of Ovitt in NW¼NW¼ sec. 5, T.24 N., R.19 W.	5.4
Calamus River 3 mi northwest of Ovitt in SW¼NW¼ sec. 16, T.24 N., R.19 W.	191
Calamus River at Ovitt in NE¼NE¼ sec. 26, T.24 N., R.19 W.	164
Calamus River 4 mi southeast of Ovitt in NE¼NW¼ sec. 8, T.23 N., R.18 W.	236
Calamus River near Harrop in NW¼SE¼ sec. 22, T.23 N., R.18 W.	330
Gracie Creek 13 mi northeast of Taylor in NW¼NW¼ sec. 20, T.23 N., R.17 W.	0
Gracie Creek 12 mi northeast of Taylor in SW¼NW¼ sec. 29, T.23 N., R.17 W.	2.2
Calamus River 13 mi northwest of Burwell in SE¼SW¼ sec. 32, T.23 N., R.17 W.	372
Calamus River 9 mi northwest of Burwell in SW¼SE¼ sec. 15, T.22 N., R.17 W.	326
Dry Creek 9 mi northwest of Burwell in SE¼SW¼ sec. 14, T.22 N., R.17 W.	0
Calamus River 3 mi northwest of Burwell in NW¼NW¼ sec. 9, T.21 N., R.16 W.	344
North Loup River at Burwell in SW¼SW¼ sec. 13, T.21 N., R.16 W.	985
Burwell-Sumter Canal 1 mi east of Burwell in NW¼NE¼ sec. 19, T.21 N., R.15 W.	0
Jones Canyon 2 mi east of Burwell in NE¼NE¼ sec. 19, T.21 N., R.15 W.	1.0
Bean Creek 7 mi east of Burwell in NW¼SW¼ sec. 24, T.21 N., R.15 W.	0
Bean Creek 6 mi southeast of Burwell in SW¼NE¼ sec. 10, T.20 N., R.15 W.	.29
North Loup River 1 mi north of Elyria in SE¼NE¼ sec. 23, T.20 N., R.15 W.	1,520
North Branch Turtle Creek 4 mi west of Elyria in NW¼SE¼ sec. 19, T.20 N., R.15 W.	0
North Branch Turtle Creek 2 mi southwest of Elyria in NW¼NE¼ sec. 34, T.20 N., R.15 W.	.40
South Branch Turtle Creek 5 mi southwest of Elyria in NW¼NW¼ sec. 16, T.19 N., R.15 W.	0
South Branch Turtle Creek 2 mi southwest of Elyria in NW¼SE¼ sec. 34, T.20 N., R.15 W.	.84
Turtle Creek 2 mi southeast of Elyria in NE¼SE¼ sec. 36, T.20 N., R.15 W.	4.3
Dane Creek 3 mi southwest of Ord in NW¼NW¼ sec. 31, T.19 N., R.14 W.	0
Dane Creek 3 mi west of Ord in NW¼NW¼ sec. 20, T.19 N., R.14 W.	.79
Dane Creek 2 mi west of Ord in NE¼NE¼ sec. 20, T.19 N., R.14 W.	1.5
North Loup River at Ord in SW¼NW¼ sec. 22, T.19 N., R.14 W.	1,220
Elm Creek 3 mi northeast of Ord in NW¼SW¼ sec. 7, T.19 N., R.13 W.	0
Elm Creek 3 mi east of Ord in NW¼SE¼ sec. 24, T.19 N., R.14 W.	.01
Spring Creek 5 mi east of Ord in SW¼NW¼ sec. 21, T.19 N., R.13 W.	.20
Messenger Creek 8 mi northeast of Ord in NW¼SW¼ sec. 26, T.20 N., R.13 W.	0
Messenger Creek 8 mi east of Ord in SW¼NW¼ sec. 25, T.19 N., R.13 W.	.72
Dowel Creek 3 mi north of North Loup in SE¼SW¼ sec. 11, T.18 N., R.13 W.	0
Stewart Creek 3 mi northeast of North Loup in SE¼SW¼ sec. 18, T.18 N., R.12 W.	.03
North Loup River 1 mi northeast of North Loup in NE¼NE¼ sec. 25, T.18 N., R.13 W.	1,080
Shepherd Creek 2 mi northeast of North Loup in SW¼SE¼ sec. 19, T.18 N., R.12 W.	0
Tributary to North Mira Creek 5 mi west of North Loup in SE¼SE¼ sec. 13, T.18 N., R.14 W.	0
North Mira Creek 2 mi west of North Loup in NW¼NW¼ sec. 28, T.18 N., R.13 W.	0
South Mira Creek 3 mi southwest of North Loup in SW¼NW¼ sec. 4, T.17 N., R.13 W.	0
South Mira Creek 2 mi southwest of North Loup in NW¼SE¼ sec. 33, T.18 N., R.13 W.	.03
Mira Creek 1 mi northeast of North Loup in NW¼NE¼ sec. 25, T.18 N., R.13 W.	2.2
Wallace Creek near Scotia in SE¼NW¼ sec. 9, T.17 N., R.12 W.	.02
Fish Creek 5 mi southeast of Scotia in SW¼SW¼ sec. 30, T.17 N., R.11 W.	0
Dry Creek 5 mi southeast of Scotia in SE¼SW¼ sec. 30, T.17 N., R.11 W.	0
Fish Creek 6 mi southeast of Scotia in SE¼SW¼ sec. 31, T.17 N., R.11 W.	.15
North Loup River 1 mi east of Cotesfield in NE¼NE¼ sec. 18, T.16 N., R.11 W.	1,190
Munson Creek 8 mi northwest of Elba in SE¼SE¼ sec. 29, T.16 N., R.12 W.	0
Munson Creek 5 mi west of Elba in SW¼NW¼ sec. 3, T.15 N., R.12 W.	.72
Munson Creek 2 mi west of Elba in NE¼NE¼ sec. 7, T.15 N., R.11 W.	2.9
Munson Creek 2 mi north of Elba in SW¼SE¼ sec. 28, T.16 N., R.11 W.	3.0
North Loup tributary 5 mi north of Elba in SW¼SE¼ sec. 9, T.16 N., R.11 W.	0
North Loup tributary 2 mi north of Elba in NW¼SW¼ sec. 27, T.16 N., R.11 W.	0
North Loup River at Elba in NE¼NE¼ sec. 10, T.15 N., R.11 W.	1,250
Auger Creek at Elba in NE¼NE¼ sec. 9, T.15 N., R.11 W.	2.2
North Loup tributary 1 mi south of Elba in SE¼NE¼ sec. 15, T.15 N., R.11 W.	.17
North Loup tributary 4 mi south of Elba in SE¼SE¼ sec. 34, T.15 N., R.11 W.	trace
North Loup tributary 4 mi southeast of Elba in NW¼NE¼ sec. 36, T.15 N., R.11 W.	.52
North Loup tributary 3 mi southeast of Elba in NW¼NE¼ sec. 24, T.15 N., R.11 W.	.42
Cedar Creek 8 mi north of St. Paul in NE¼NE¼ sec. 31, T.16 N., R.10 W.	0
Cedar Creek 5 mi north of St. Paul in SE¼SW¼ sec. 8, T.15 N., R.10 W.	.07
North Loup River 3 mi north of St. Paul in NW¼NE¼ sec. 22, T.15 N., R.10 W.	1,290

PLATTE RIVER BASIN

Beaver Creek basin

Discharge measurements were made on the main stem of Beaver Creek in October 1978 and on the main stem and tributaries in April 1979 in Wheeler, Boone, Platte, and Nance Counties, Nebr. Conditions were excellent in October 1978, as no rain fell during the week prior to the measurements which were made at base flow. Measurements in April 1979 were made at medium base flow. Light rain showers of about 0.15 inch had occurred in the basin on April 28. Locations are listed in downstream order.

Location	Observation of zero flow or measured discharge, in cubic feet per second	
	Oct.19, 1978	Apr.30, 1979
Beaver Creek 7 mi northwest of Bartlett in SW¼NE¼ sec. 8, T.23 N., R.11 W.	-----	0
Beaver Creek 7 mi north of Bartlett in SE¼NE¼ sec. 11, T.23 N., R.11 W.	.04	1.3
Beaver Creet 6 mi northeast of Bartlett in NW¼SW¼ sec. 17, T.23 N., R.10 W.	0	2.4
Beaver Creek 8 mi northeast of Bartlett in NW¼NW¼ sec. 30, T.23 N., R.9 W.	2.1	12
Beaver Creek 12 mi northeast of Bartlett in SE¼NE¼ sec. 34, T.23 N., R.9 W.	7.4	27
Beaver Creek 10 mi northwest of Petersburg in SW¼NW¼ sec. 8, T.22 N., R.8 W.	14	36
Beaver Creek 6 mi west of Petersburg in NE¼SE¼ sec. 23, T.22 N., R.8 W.	28	54
Beaver Creek tributary 5 mi west of Petersburg in NE¼NW¼ sec. 30, T.22 N., R.7 W.	-----	0
Beaver Creek tributary 5 mi west of Petersburg in NW¼NE¼ sec. 30, T.22 N., R.7 W.	-----	0
Beaver Creek 4 mi southwest of Petersburg in SE¼NE¼ sec. 31, T.22 N., R.7 W.	-----	61
Beaver Creek 3 mi north of Loretto in NE¼NE¼ sec. 10, T.21 N., R.7 W.	35	69
Rae Creek 2 mi south of Petersburg in NW¼NE¼ sec. 2, T.21 N., R.7 W.	-----	.02
Beaver Creek at Loretto in SE¼NE¼ sec. 26, T.21 N., R.7 W.	38	82
Beaver Creek 3 mi southeast of Loretto in NW¼NW¼ sec. 7, T.20 N., R.6 W.	-----	89
Beaver Creek near Albion in SE¼SE¼ sec. 16, T.20 N., R.6 W.	-----	90
Beaver Creek tributary 3 mi north of Albion in NW¼NW¼ sec. 10, T.20 N., R.6 W.	-----	0
Beaver Creek 1 mi southeast of Albion in NW¼NE¼ sec. 26, T.20 N., R.6 W.	40	93
O'Neil Valley 3 mi southeast of Albion in NE¼NE¼ sec. 36, T.20 N., R.6 W.	-----	0
Beaver Creek 5 mi southeast of Albion in NW¼SW¼ sec. 5, T.19 N., R.5 W.	-----	99
Beaver Creek 4 mi northeast of St. Edward in NW¼SW¼ sec. 16, T.19 N., R.5 W.	-----	102
Vorhees Creek 4 mi northeast of St. Edward in SE¼NW¼ sec. 16, T.19 N., R.5 W.	-----	0
Beaver Creek 2 mi northwest of St. Edward in SE¼SE¼ sec. 21, T.19 N., R.5 W.	43	105
Beaver Creek at St. Edward in NW¼NE¼ sec. 3, T.18 N., R.5 W.	-----	116
Bogus Creek 2 mi west of St. Edward in SW¼NW¼ sec. 4, T.18 N., R.5 W.	-----	0
Bogus Creek 2 mi southwest of St. Edward in SW¼NW¼ sec. 10, T.18 N., R.5 W.	-----	.12
Bogus Creek 2 mi south of St. Edward in NE¼SW¼ sec. 11, T.18 N., R.5 W.	-----	1.5
Bogus Creek 2 mi southeast of St. Edward in SE¼SW¼ sec. 12, T.18 N., R.5 W.	-----	2.6
Beaver Creek 2 mi southeast of St. Edward in SW¼SE¼ sec. 12, T.18 N., R.5 W.	50	115
Beaver Creek tributary 3 mi southeast of St. Edward in SW¼SW¼ sec. 7, T.18 N., R.4 W.	-----	0
Beaver Creek 4 mi northwest of Genoa in SW¼NW¼ sec. 33, T.18 N., R.4 W.	-----	136
Skedee Creek 3 mi west of Genoa in NW¼NW¼ sec. 16, T.17 N., R.4 W.	-----	0
Beaver Creek at Genoa in NE¼SE¼ sec. 14, T.17 N., R.4 W.	56	149

Discharge measurements and observations of zero flow were made on tributaries to the Platte River in Lincoln County, Nebr., and on the Republican River and tributaries in Hitchcock, Hayes, Lincoln, Red Willow, Frontier, Furnas, Gosper, Harlan, Phelps, and Franklin Counties, Nebr., in October 1978. Very dry conditions prevailed, as no measurable precipitation had fallen in the area since September 18, 1978. Locations are listed in downstream order.

PLATTE RIVER BASIN

Location	Observation of zero flow or measured discharge, in cubic feet per second
	October 10-18, 1978
Box Elder Canyon 4 mi southwest of Maxwell in SW¼NE¼ sec. 12, T.12 N., R.29 W.	0
Cottonwood Canyon 5 mi south of Maxwell in SW¼NW¼ sec. 21, T.12 N., R.28 W.	0
Snell Canyon 6 mi southwest of Brady in SE¼SW¼ sec. 36, T.12 N., R.28 W.	0
Conroy Canyon 8 mi southwest of Brady in SW¼SE¼ sec. 17, T.11 N., R.27 W.	0
Jeffrey Canyon 5 mi south of Brady in SW¼SE¼ sec. 2, T.11 N., R.27 W.	0

KANSAS RIVER BASIN

Republican River basin

Location	Observation of zero flow or measured discharge, in cubic feet per second
Republican River at Stratton in SW¼NW¼ sec. 13, T.2 N., R.35 W.	0
Hay Canyon at Stratton in SW¼SE¼ sec. 12, T.2 N., R.35 W.	0
Camp Creek 3 mi northeast of Stratton in SE¼NW¼ sec. 30, T.3 N., R.34 W.	0
Camp Creek 3 mi east of Stratton in NE¼NE¼ sec. 8, T.2 N., R.34 W.	.03
Dry Canyon 7 mi west of Trenton in SE¼SE¼ sec. 34, T.3 N., R.34 W.	0
Macklin Canyon 5 mi west of Trenton in SW¼SE¼ sec. 36, T.3 N., R.34 W.	0
Spring Canyon 4 mi southwest of Trenton in NW¼NW¼ sec. 17, T.2 N., R.33 W.	0
Elm Creek 2 mi west of Trenton in SW¼SW¼ sec. 33, T.3 N., R.33 W.	.27
Black Canyon 2 mi southwest of Trenton in NW¼NW¼ sec. 10, T.2 N., R.33 W.	0
Republican River at Trenton in SW¼SE¼ sec. 2, T.2 N., R.33 W.	.77
Bush Creek at Trenton in SE¼SE¼ sec. 34, T.3 N., R.33 W.	0
Big Canyon Creek 1 mi southeast of Trenton in SW¼SE¼ sec. 1, T.2 N., R.33 W.	0
Massacre Canyon 3 mi east of Trenton in SW¼NE¼ sec. 30, T.3 N., R.32 W.	.03
Thompson Canyon 3 mi east of Trenton in NE¼NW¼ sec. 5, T.2 N., R.32 W.	0
Republican River at Culbertson in SE¼SE¼ sec. 17, T.3 N., R.31 W.	1.2
Frenchman Creek 1 mi east of Wauneta in NW¼SE¼ sec. 12, T.5 N., R.36 W.	13
Frenchman Creek 3 mi west of Hamlet in NW¼NW¼ sec. 22, T.5 N., R.35 W.	15
Frenchman Creek 1 mi west of Hamlet in SW¼NE¼ sec. 23, T.5 N., R.35 W.	18
Frenchman Creek 1 mi east of Hamlet in NE¼NE¼ sec. 30, T.5 N., R.34 W.	17
Frenchman Creek 1 mi west of Palisade in SW¼SE¼ sec. 36, T.5 N., R.34 W.	18
Stinking Water Creek 7 mi northeast of Wauneta in SW¼SW¼ sec. 7, T.6 N., R.35 W.	11
Stinking Water Creek 6 mi northwest of Hamlet in SE¼NW¼ sec. 27, T.6 N., R.35 W.	15
Stinking Water Creek 3 mi northeast of Hamlet in SW¼SW¼ sec. 5, T.5 N., R.34 W.	15
Stinking Water Creek 4 mi northeast of Hamlet in SW¼SE¼ sec. 15, T.5 N., R.34 W.	17
Stinking Water Creek 1 mi north of Hamlet in SW¼NW¼ sec. 30, T.5 N., R.33 W.	18
Bob Tail Creek 2 mi south of Palisade in SE¼NW¼ sec. 13, T.4 N., R.34 W.	.50
Frenchman Creek 2 mi east of Palisade in NW¼NW¼ sec. 5, T.4 N., R.33 W.	26
Frenchman Creek 4 mi northwest of Beverly in NW¼NW¼ sec. 15, T.4 N., R.33 W.	29
Rogers Canyon 4 mi northwest of Beverly in SW¼SW¼ sec. 15, T.4 N., R.33 W.	0
Boevau Canyon 3 mi northwest of Beverly in NW¼SW¼ sec. 23, T.4 N., R.33 W.	0
Fish Canyon 3 mi northwest of Beverly in SE¼SW¼ sec. 14, T.4 N., R.33 W.	0
Frenchman Creek 2 mi northwest of Beverly in SW¼NE¼ sec. 23, T.4 N., R.33 W.	32
Six Mile Canyon 2 mi northwest of Beverly in SE¼SE¼ sec. 14, T.4 N., R.33 W.	0
Frenchman Creek at Beverly in SW¼NW¼ sec. 29, T.4 N., R.32 W.	35
Frenchman Creek 2 mi west of Culbertson in SW¼SE¼ sec. 12, T.3 N., R.32 W.	32
Frenchman Creek at Culbertson in NE¼SE¼ sec. 17, T.3 N., R.31 W.	30
Blackwood Creek 6 mi north of Culbertson in SW¼NW¼ sec. 17, T.4 N., R.31 W.	0
Blackwood Creek 3 mi north of Culbertson in SW¼NW¼ sec. 33, T.4 N., R.31 W.	0
Blackwood Creek 2 mi north of Culbertson in SE¼SW¼ sec. 33, T.4 N., R.31 W.	.09
Blackwood Creek 1 mi east of Culbertson in SE¼SW¼ sec. 10, T.3 N., R.31 W.	1.1
Republican River at Perry in SW¼SW¼ sec. 28, T.3 N., R.30 W.	44
Driftwood Creek 10 mi south of Culbertson in SW¼NW¼ sec. 35, T.2 N., R.31 W.	0
Elm Creek 11 mi south of Culbertson in SE¼NW¼ sec. 2, T.1 N., R.31 W.	0
Ledge Creek 12 mi south of Culbertson in NW¼SW¼ sec. 12, T.1 N., R.31 W.	0
Driftwood Creek 9 mi southeast of Culbertson in NW¼NE¼ sec. 25, T.2 N., R.31 W.	.06
Driftwood Creek 4 mi southwest of McCook in SW¼SW¼ sec. 12, T.2 N., R.30 W.	4.3
Republican River at McCook in SW¼NE¼ sec. 32, T.3 N., R.29 W.	44
Dry Creek 2 mi south of McCook in SE¼SE¼ sec. 6, T.2 N., R.29 W.	0
Brushy Creek 3 mi southeast of McCook in NE¼NW¼ sec. 3, T.2 N., R.29 W.	0
Brushy Creek 3 mi east of McCook in SE¼NE¼ sec. 34, T.3 N., R.29 W.	.17
Drain at McCook in SE¼NW¼ sec. 28, T.3 N., R.29 W.	0
Drain 3 mi east of McCook in NE¼NW¼ sec. 26, T.3 N., R.29 W.	.41
River Canyon 2 mi west of Red Willow in SE¼SW¼ sec. 18, T.3 N., R.28 W.	0
Republican River at Red Willow in SE¼NW¼ sec. 21, T.3 N., R.28 W.	38
Ash Creek 1 mi south of Red Willow in SE¼SW¼ sec. 21, T.3 N., R.28 W.	.08

KANSAS RIVER BASIN

Republican River basin--continued

Location	Observation of zero flow or measured discharge, in cubic feet per second
	October 10-18, 1978
Red Willow Creek 1 mi east of Wallace in SE¼SE¼ sec. 13, T.10 N., R.34 W.	0
Drain 3 mi south of Wallace in SW¼NW¼ sec. 36, T.10 N., R.34 W.	0
Red Willow Creek 6 mi southeast of Wallace in SE¼SW¼ sec. 3, T.9 N., R.33 W.	0
Red Willow Creek 10 mi southeast of Wallace in SW¼NE¼ sec. 25, T.9 N., R.33 W.	0
Suttlers Canyon 10 mi northeast of Hayes Center in SW¼NW¼ sec. 21, T.8 N., R.32 W.	0
Red Willow Creek 8 mi northeast of Hayes Center in NE¼NW¼ sec. 34, T.8 N., R.32 W.	5.6
Drain 7 mi northeast of Hayes Center in SE¼NW¼ sec. 14, T.7 N., R.32 W.	0
Drain 6 mi northeast of Hayes Center in SW¼NW¼ sec. 24, T.7 N., R.32 W.	0
Red Willow Creek 7 mi northeast of Hayes Center in NE¼SW¼ sec. 24, T.7 N., R.32 W.	7.5
Red Willow Creek 9 mi east of Hayes Center in NE¼SE¼ sec. 9, T.6 N., R.31 W.	9.8
Burger Canyon 11 mi southeast of Hayes Center in SE¼NW¼ sec. 27, T.6 N., R.31 W.	0
Red Willow Creek 12 mi southeast of Hayes Center in SE¼NW¼ sec. 35, T.6 N., R.31 W.	13
Kucera Canyon 12 mi southeast of Hayes Center in SE¼SE¼ sec. 34, T.6 N., R.31 W.	0
Red Willow Creek 12 mi northeast of Culbertson in NE¼SE¼ sec. 13, T.5 N., R.31 W.	13
Sand Creek 14 mi northeast of Culbertson in SW¼SW¼ sec. 31, T.6 N., R.30 W.	0
Spring Creek 16 mi north of McCook in NW¼NW¼ sec. 2, T.5 N., R.30 W.	0
Drain 16 mi north of McCook in NW¼NE¼ sec. 1, T.5 N., R.30 W.	0
Red Willow Creek 10 mi north of McCook in SW¼NW¼ sec. 6, T.4 N., R.29 W.	3.4
Bee Canyon 10 mi north of McCook in SE¼SW¼ sec. 5, T.4 N., R.29 W.	0
Drain 9 mi north of McCook in NE¼NW¼ sec. 9, T.4 N., R.29 W.	0
Red Willow Creek 7 mi northeast of McCook in NE¼NW¼ sec. 22, T.4 N., R.29 W.	7.0
Red Willow Creek 4 mi northwest of Red Willow in SE¼SE¼ sec. 25, T.4 N., R.29 W.	6.8
Drain 3 mi north of Red Willow in SW¼SW¼ sec. 32, T.4 N., R.28 W.	0
Red Willow Creek 1 mi north of Red Willow in NE¼NE¼ sec. 17, T.3 N., R.28 W.	5.7
Drain 1 mi west of Indianola in SE¼SE¼ sec. 11, T.3 N., R.28 W.	0
Coon Creek at Indianola in SW¼SE¼ sec. 12, T.3 N., R.28 W.	0
Republican River at Indianola in SW¼SW¼ sec. 18, T.3 N., R.27 W.	40
Buffalo Creek 1 mi south of Indianola in NW¼NW¼ sec. 19, T.3 N., R.27 W.	0
Berger Creek 2 mi southeast of Indianola in NE¼SE¼ sec. 17, T.3 N., R.27 W.	0
School Creek 3 mi east of Indianola in SE¼NE¼ sec. 16, T.3 N., R.27 W.	0
Dry Creek at Bartley in SW¼SE¼ sec. 1, T.3 N., R.27 W.	0
Sleepy Hollow 2 mi south of Bartley in SE¼NE¼ sec. 13, T.3 N., R.27 W.	0
Republican River at Bartley in SW¼SW¼ sec. 7, T.3 N., R.26 W.	37
Stevenson Canyon at Bartley in NW¼SE¼ sec. 6, T.3 N., R.26 W.	0
Richmond Creek 2 mi east of Bartley in SW¼NW¼ sec. 4, T.3 N., R.26 W.	0
Silver Creek 4 mi east of Bartley in SW¼SW¼ sec. 2, T.3 N., R.26 W.	0
Bogus Canyon 3 mi southwest of Cambridge in SE¼SE¼ sec. 1, T.3 N., R.26 W.	0
Drain 2 mi south of Cambridge in SE¼SW¼ sec. 6, T.3 N., R.25 W.	0
Medicine Creek 9 mi northwest of Wellfleet in SE¼SE¼ sec. 17, T.10 N., R.31 W.	.34
Medicine Creek 5 mi northwest of Wellfleet in SW¼NE¼ sec. 35, T.10 N., R.31 W.	3.0
Medicine Creek 1 mi northwest of Wellfleet in NE¼SE¼ sec. 8, T.9 N., R.30 W.	11
Medicine Creek 2 mi southeast of Wellfleet in SW¼NW¼ sec. 24, T.9 N., R.30 W.	15
Hay Canyon 3 mi east of Wellfleet in SE¼NW¼ sec. 7, T.9 N., R.29 W.	0
Medicine Creek at Maywood in NE¼NE¼ sec. 21, T.8 N., R.29 W.	19
Medicine Creek 3 mi southeast of Maywood in NE¼SW¼ sec. 25, T.8 N., R.29 W.	20
Brushy Creek 2 mi south of Maywood in SE¼SE¼ sec. 29, T.8 N., R.29 W.	.03
Brushy Creek 3 mi southeast of Maywood in NE¼NE¼ sec. 35, T.8 N., R.29 W.	.66
Well Canyon 1 mi west of Curtis in NE¼NW¼ sec. 32, T.8 N., R.28 W.	0
Medicine Creek at Curtis in NE¼NE¼ sec. 32, T.8 N., R.28 W.	25
Fox Creek 13 mi north of Curtis in SE¼NW¼ sec. 28, T.10 N., R.28 W.	0
Fox Creek 8 mi north of Curtis in SW¼SE¼ sec. 17, T.9 N., R.28 W.	1.3
Cut Canyon 7 mi north of Curtis in NW¼NE¼ sec. 29, T.9 N., R.28 W.	.41
Fox Creek 4 mi north of Curtis in NW¼NE¼ sec. 8, T.8 N., R.28 W.	3.0
Fox Creek 1 mi east of Curtis in SE¼NW¼ sec. 27, T.8 N., R.28 W.	3.2
Curtis Creek 3 mi southeast of Curtis in SW¼SW¼ sec. 36, T.8 N., R.28 W.	.13
Medicine Creek 4 mi southeast of Curtis in SE¼NW¼ sec. 1, T.7 N., R.28 W.	28
Dry Creek 4 mi southeast of Curtis in SE¼NE¼ sec. 1, T.7 N., R.28 W.	0
Medicine Creek at Stockville in SW¼NE¼ sec. 34, T.7 N., R.27 W.	32
Spring Creek 1 mi south of Stockville in NW¼NW¼ sec. 3, T.6 N., R.27 W.	0
Cedar Creek 2 mi south of Stockville in SW¼SW¼ sec. 3, T.6 N., R.27 W.	.11
Walnut Creek 4 mi southeast of Stockville in SW¼SW¼ sec. 12, T.6 N., R.27 W.	0
Medicine Creek 4 mi southeast of Stockville in NW¼SW¼ sec. 7, T.6 N., R.26 W.	33
Medicine Creek 8 mi southeast of Stockville in SW¼SE¼ sec. 28, T.6 N., R.26 W.	31
Mitchell Creek 9 mi southeast of Stockville in SE¼NW¼ sec. 26, T.6 N., R.26 W.	0
Lime Creek 9 mi northwest of Cambridge in SE¼NW¼ sec. 15, T.5 N., R.26 W.	.23
Medicine Creek below Medicine Creek dam in SW¼NE¼ sec. 25, T.5 N., R.26 W.	1.1
Elk Creek 7 mi northwest of Cambridge in NE¼SW¼ sec. 25, T.5 N., R.26 W.	.08
Medicine Creek 4 mi north of Cambridge in NW¼NW¼ sec. 7, T.4 N., R.25 W.	.40
Medicine Creek 3 mi north of Cambridge in SE¼NE¼ sec. 18, T.4 N., R.25 W.	0
Medicine Creek 2 mi north of Cambridge in SE¼SE¼ sec. 18, T.4 N., R.25 W.	.04

KANSAS RIVER BASIN

Republican River basin--continued

Location	Observation of zero flow or measured discharge, in cubic feet per second October 10-18, 1978
Medicine Creek 1 mi north of Cambridge in NE¼SE¼ sec. 19, T.4 N., R.25 W.	0
Medicine Creek 0.5 mi east of Cambridge in SW¼SW¼ sec. 28, T.4 N., R.25 W.	0
Medicine Creek 1 mi east of Cambridge in SE¼SW¼ sec. 28, T.4 N., R.25 W.	.29
Republican River at Cambridge in NW¼SE¼ sec. 28, T.4 N., R.25 W.	25
Cambridge Canal Diversion 2 mi east of Cambridge in NE¼SE¼ sec. 27, T.4 N., R.25 W.	31
Drain 1 mi south of Cambridge in SW¼SW¼ sec. 33, T.4 N., R.25 W.	0
Drain 2 mi southeast of Cambridge in SW¼NW¼ sec. 34, T.4 N., R.25 W.	.05
Drain 3 mi southeast of Cambridge in SE¼NE¼ sec. 34, T.4 N., R.25 W.	0
Drain 4 mi southeast of Cambridge in SE¼NE¼ sec. 35, T.4 N., R.25 W.	0
Smith Canyon 4 mi east of Cambridge in SE¼SE¼ sec. 24, T.4 N., R.25 W.	0
Drain 6 mi east of Cambridge in SE¼SW¼ sec. 29, T.4 N., R.24 W.	0
Republican River at Holbrook in NW¼SW¼ sec. 23, T.4 N., R.24 W.	.26
Deer Creek at Holbrook in SW¼NW¼ sec. 23, T.4 N., R.24 W.	.51
Timmons Creek 2 mi south of Holbrook in SW¼SE¼ sec. 27, T.4 N., R.24 W.	0
Canal drain 3 mi east of Holbrook in NW¼NE¼ sec. 19, T.4 N., R.23 W.	.87
Republican River at Arapahoe in SE¼SE¼ sec. 27, T.4 N., R.23 W.	0
Crum Creek 1 mi south of Arapahoe in SE¼SW¼ sec. 26, T.4 N., R.23 W.	0
Muddy Creek 14 mi north of Holbrook in SW¼SE¼ sec. 8, T.6 N., R.24 W.	.09
Muddy Creek 11 mi north of Holbrook in SE¼SW¼ sec. 28, T.6 N., R.24 W.	.16
West Muddy Creek 11 mi north of Holbrook in SE¼NE¼ sec. 32, T.6 N., R.24 W.	0
Muddy Creek 5 mi north of Holbrook in NW¼SW¼ sec. 19, T.5 N., R.23 W.	2.5
Elder Creek 6 mi northeast of Holbrook in NE¼SE¼ sec. 19, T.5 N., R.23 W.	0
East Muddy Creek 5 mi northeast of Holbrook in NW¼NE¼ sec. 32, T.5 N., R.23 W.	0
Muddy Creek 4 mi northeast of Holbrook in NW¼NE¼ sec. 6, T.4 N., R.23 W.	2.6
Muddy Creek at Arapahoe in NW¼NW¼ sec. 22, T.4 N., R.23 W.	5.5
Elk Creek 3 mi north of Arapahoe in NE¼NE¼ sec. 3, T.4 N., R.23 W.	0
Elk Creek tributary 3 mi north of Arapahoe in NW¼NE¼ sec. 3, T.4 N., R.23 W.	0
Elk Creek 2 mi north of Arapahoe in NE¼SE¼ sec. 3, T.4 N., R.23 W.	.05
Elk Creek at Arapahoe in NE¼NE¼ sec. 23, T.4 N., R.23 W.	.78
Little Antelope Creek 2 mi east of Arapahoe in NE¼NE¼ sec. 24, T.4 N., R.23 W.	0
Big Antelope Creek 2 mi northwest of Edison in NW¼NE¼ sec. 29, T.4 N., R.22 W.	0
Dry Creek 2 mi west of Edison in NW¼NE¼ sec. 33, T.4 N., R.22 W.	.43
Canal drain near Edison in NE¼NE¼ sec. 27, T.4 N., R.22 W.	0
Republican River at Edison in NW¼SW¼ sec. 35, T.4 N., R.22 W.	3.5
East Branch Turkey Creek 6 mi south of Smithfield in NE¼NW¼ sec. 19, T.6 N., R.21 W.	.31
East Branch Turkey Creek 9 mi south of Smithfield in NE¼SE¼ sec. 36, T.6 N., R.22 W.	.69
West Branch Turkey Creek 10 mi southwest of Smithfield in SE¼NE¼ sec. 2, T.5 N., R.22 W.	0
Turkey Creek 4 mi north of Edison in NW¼NW¼ sec. 12, T.4 N., R. 22 W.	1.4
Turkey Creek 3 mi east of Edison in NE¼SW¼ sec. 31, T.4 N., R.21 W.	1.3
Tributary to Turkey Creek 4 mi southeast of Edison in NW¼NE¼ sec. 5, T.3 N., R.21 W.	0
Swartz Creek 3 mi west of Oxford in NW¼NW¼ sec. 4, T.3 N., R.21 W.	.21
Small drain 2 mi west of Oxford in NW¼NW¼ sec. 3, T.3 N., R.21 W.	.10
Small drain 1 mi southwest of Oxford in NW¼NW¼ sec. 11, T.3 N., R.21 W.	.41
Republican River at Oxford in NE¼SE¼ sec. 12, T.3 N., R.21 W.	2.8
Small drain at Oxford in SW¼SW¼ sec. 6, T.3 N., R.20 W.	0
Spring Creek 12 mi north of Oxford in NE¼SW¼ sec. 9, T.5 N., R.20 W.	0
Spring Creek 9 mi north of Oxford in SW¼SE¼ sec. 21, T.5 N., R.20 W.	.18
Spring Creek 7 mi northeast of Oxford in SW¼NE¼ sec. 4, T.4 N., R.20 W.	.37
Spring Creek 4 mi northeast of Oxford in SW¼SE¼ sec. 16, T.4 N., R.20 W.	1.1
Spring Creek 3 mi east of Oxford in SE¼SW¼ sec. 3, T.3 N., R.20 W.	.83
Spring Creek 3 mi southeast of Oxford in NW¼NE¼ sec. 15, T.3 N., R.20 W.	.48
Deep Creek 4 mi east of Oxford in SW¼SW¼ sec. 2, T.3 N., R.20 W.	0
Deep Creek 4 mi southeast of Oxford in NW¼NE¼ sec. 22, T.3 N., R.20 W.	.37
Foster Creek 5 mi southeast of Oxford in SW¼SW¼ sec. 13, T.3 N., R.20 W.	0
Foster Creek 6 mi southeast of Oxford in NW¼NE¼ sec. 26, T.3 N., R.20 W.	.29
Republican River 6 mi southeast of Oxford in SW¼SE¼ sec. 26, T.3 N., R.20 W.	1.3
School Creek 7 mi southeast of Oxford in NW¼NE¼ sec. 36, T.3 N., R.20 W.	0
Republican River 2 mi west of Orleans in NE¼NE¼ sec. 19, T.2 N., R.19 W.	0
Milrose Creek 5 mi north of Orleans in SW¼SW¼ sec. 21, T.3 N., R.19 W.	0
Milrose Creek 2 mi northwest of Orleans in NE¼SE¼ sec. 8, T.2 N., R.19 W.	.21
Jones Creek 9 mi south of Hendley in SW¼SW¼ sec. 36, T.1 N., R.24 W.	0
Sappa Creek 8 mi south of Hendley in SW¼SW¼ sec. 30, T.1 N., R.23 W.	0
Dutch Creek 8 mi southeast of Hendley in NE¼NW¼ sec. 32, T.1 N., R.23 W.	0
Sappa Creek 7 mi southeast of Hendley in SW¼SW¼ sec. 14, T.1 N., R.23 W.	0
Dry Creek 6 mi south of Beaver City in SW¼SW¼ sec. 18, T.1 N., R.22 W.	0
Drain 4 mi southwest of Precept in NW¼NW¼ sec. 22, T.1 N., R.22 W.	0
Sappa Creek 3 mi west of Precept in SE¼SW¼ sec. 10, T.1 N., R.22 W.	0
Drain 2 mi southwest of Precept in SE¼NE¼ sec. 23, T.1 N., R.22 W.	0
Maple Creek at Precept in NE¼SW¼ sec. 7, T.1 N., R.21 W.	0
Sappa Creek 1 mi east of Precept in SE¼NE¼ sec. 8, T.1 N., R.21 W.	0
Sappa Creek 2 mi east of Precept in SE¼SW¼ sec. 9, T.1 N., R.21 W.	0
Jack Creek 3 mi east of Precept in SW¼SE¼ sec. 9, T.1 N., R.21 W.	0
Honey Creek 5 mi northeast of Precept in NW¼NW¼ sec. 1, T.1 N., R.21 W.	0
Sappa Creek 3 mi southwest of Stamford in SE¼NE¼ sec. 26, T.2 N., R.21 W.	0
Beaver Creek at Marion in SE¼SW¼ sec. 28, T.1 N., R.28 W.	0
Beaver Creek at Lebanon in NE¼SW¼ sec. 17, T.1 N., R.26 W.	0
Drain 1 mi south of Wilsonville in NE¼SW¼ sec. 35, T.2 N., R.25 W.	0
Beaver Creek at Wilsonville in NW¼NE¼ sec. 35, T.2 N., R.25 W.	0

KANSAS RIVER BASIN

Republican River basin--continued

Location	Observation of zero flow or measured discharge, in cubic feet per second October 10-18, 1978
Drain 2 mi east of Wilsonville in SE¼NW¼ sec. 30, T.2 N., R.24 W.	0
Beaver Creek 1 mi south of Hendley in SW¼SW¼ sec. 19, T.2 N., R.23 W.	0
Drain 2 mi east of Hendley in SW¼SE¼ sec. 17, T.2 N., R.23 W.	0
Beaver Creek 3 mi west of Beaver City in SW¼SW¼ sec. 23, T.2 N., R.23 W.	0
Drain 3 mi west of Beaver City in SE¼NE¼ sec. 22, T.2 N., R.23 W.	0
Drain 2 mi west of Beaver City in SE¼SE¼ sec. 14, T.2 N., R.23 W.	0
Beaver Creek at Beaver City in SW¼SE¼ sec. 18, T.2 N., R.22 W.	0
Drain 2 mi northeast of Beaver City in SE¼SW¼ sec. 10, T.2 N., R.22 W.	0
Drain at Hollinger in SE¼SW¼ sec. 5, T.2 N., R.21 W.	0
Beaver Creek at Hollinger in NE¼SE¼ sec. 8, T.2 N., R.21 W.	0
Drain 3 mi east of Hollinger in SW¼SE¼ sec. 11, T.2 N., R.21 W.	0
Beaver Creek 4 mi southeast of Hollinger in NE¼SE¼ sec. 23, T.2 N., R.21 W.	0
Twin Creek 1 mi southeast of Stamford in NE¼NW¼ sec. 28, T.2 N., R.20 W.	0
Sappa Creek 2 mi southwest of Orleans in SW¼SE¼ sec. 19, T.2 N., R.19 W.	0
Republican River 2 mi south of Orleans in NW¼NE¼ sec. 34, T.2 N., R.19 W.	0
Flag Creek 3 mi north of Orleans in SE¼SE¼ sec. 34, T.3 N., R.19 W.	0
Flag Creek 2 mi north of Orleans in SE¼SE¼ sec. 3, T.2 N., R.19 W.	.19
Flag Creek at Orleans in SE¼SE¼ sec. 16, T.2 N., R.19 W.	6.5
Rope Creek 3 mi northeast of Orleans in SE¼SE¼ sec. 12, T.2 N., R.19 W.	0
Rope Creek 2 mi east of Orleans in SW¼SE¼ sec. 13, T.2 N., R.19 W.	.30
Republican River 1 mi south of Alma in NE¼NE¼ sec. 5, T.1 N., R.18 W.	0
Cook Creek 5 mi north of Alma in SE¼SW¼ sec. 33, T.3 N., R.18 W.	0
Cook Creek 2 mi north of Alma in SW¼SE¼ sec. 16, T.2 N., R.18 W.	0
Cook Creek at Alma in SW¼SE¼ sec. 28, T.2 N., R.18 W.	.53
Methodist Creek 7 mi northeast of Alma in SE¼SW¼ sec. 22, T.3 N., R.18 W.	0
Methodist Creek 5 mi northeast of Alma in SE¼SW¼ sec. 2, T.2 N., R.18 W.	0
Methodist Creek 4 mi northeast of Alma in NE¼NW¼ sec. 14, T.2 N., R.18 W.	0
Methodist Creek 3 mi northeast of Alma in NE¼NE¼ sec. 23, T.2 N., R.18 W.	.19
Methodist Creek 2 mi east of Alma in NE¼NE¼ sec. 35, T.2 N., R.18 W.	1.2
Prairie Dog Creek 6 mi south of Alma in NW¼NW¼ sec. 33, T.1 N., R.18 W.	0
Prairie Dog Creek 5 mi southeast of Alma in NE¼SE¼ sec. 28, T.1 N., R.18 W.	0
Prairie Dog Creek 6 mi southeast of Alma in SE¼NE¼ sec. 33, T.1 N., R.18 W.	0
Crystal Creek 7 mi southwest of Republican City in NW¼NW¼ sec. 31, T.1 N., R.17 W.	0
Mill Creek 3 mi west of Republican City in SW¼SW¼ sec. 29, T.2 N., R.17 W.	0
Mill Creek 3 mi southwest of Republican City in SE¼SW¼ sec. 32, T.2 N., R.17 W.	0
Patterson Creek 5 mi south of Republican City in SE¼NE¼ sec. 28, T.1 N., R.17 W.	0
Eureka Creek 1 mi northeast of Republican City in SW¼SE¼ sec. 26, T.2 N., R.17 W.	0
Turkey Creek 4 mi northwest of Ragan in NW¼SW¼ sec. 9, T.4 N., R.18 W.	0
Turkey Creek 3 mi west of Ragan in SE¼SW¼ sec. 15, T.4 N., R.18 W.	0
Turkey Creek 3 mi southwest of Ragan in SW¼SW¼ sec. 26, T.4 N., R.18 W.	0
Turkey Creek 3 mi northwest of Huntley in NW¼NW¼ sec. 12, T.3 N., R.18 W.	0
Turkey Creek at Huntley in SW¼SE¼ sec. 13, T.3 N., R.18 W.	0
Turkey Creek tributary 2 mi south of Ragan in SW¼SE¼ sec. 30, T.4 N., R.17 W.	0
Turkey Creek tributary 2 mi northeast of Huntley in SW¼SW¼ sec. 8, T.3 N., R.17 W.	0
Turkey Creek tributary 2 mi east of Huntley in SW¼NW¼ sec. 21, T.3 N., R.17 W.	0
Turkey Creek 3 mi east of Huntley in NW¼NW¼ sec. 27, T.3 N., R.17 W.	0
Turkey Creek 4 mi southeast of Huntley in SW¼SE¼ sec. 27, T.3 N., R.17 W.	0
Turkey Creek 5 mi southeast of Huntley in NW¼NE¼ sec. 2, T.2 N., R.17 W.	.19
Turkey Creek 7 mi southeast of Huntley in SE¼SE¼ sec. 12, T.2 N., R.17 W.	3.5
Turkey Creek 3 mi north of Naponee in NW¼SW¼ sec. 20, T.2 N., R.16 W.	7.2
Turkey Creek 1 mi north of Naponee in NW¼SW¼ sec. 33, T.2 N., R.16 W.	8.2

KANSAS RIVER BASIN

Big Blue River basin

Discharge measurements and observations of zero flow were made on the Big Blue River and tributaries in Gage County, Nebr., and Marshall County, Kans., on October 31 through November 2, 1978. No measurable precipitation fell during 7 days prior to the measurements, but light rain showers of 0.03 and 0.06 inches fell on October 31 and November 1, respectively, at Beatrice. Locations are listed in downstream order.

Location	Observation of zero flow or measured discharge, in cubic feet per second
	Oct. 31-Nov. 2, 1978
Big Blue River 9 mi northwest of Beatrice in NW¼NE¼ sec. 33, T.5 N., R.5 E.	100
Soap Creek 9 mi northwest of Beatrice in SW¼SE¼ sec. 27, T.5 N., R.5 E.	.30
Big Blue River tributary 6 mi northwest of Beatrice in SW¼NE¼ sec. 10, T.4 N., R.5 E.	0
Snake Creek 6 mi northwest of Beatrice in SE¼SE¼ sec. 2, T.4 N., R.5 E.	0
Big Blue River 5 mi northwest of Beatrice in NW¼NW¼ sec. 13, T.4 N., R.5 E.	106
Cub Creek 5 mi northwest of Beatrice in NE¼NW¼ sec. 26, T.4 N., R.5 E.	1.2
Bottle Creek 3 mi northwest of Beatrice in NW¼SW¼ sec. 30, T.4 N., R.6 E.	0
Indian Creek at Beatrice in SW¼NW¼ sec. 27, T.4 N., R.6 E.	.98
Big Blue River at Beatrice in SW¼NW¼ sec. 3, T.3 N., R.6 E.	125
Bear Creek 2 mi east of Beatrice in SW¼SE¼ sec. 36, T.4 N., R.6 E.	4.5
Cedar Creek tributary 4 mi southeast of Beatrice in SE¼SE¼ sec. 8, T.3 N., R.7 E.	.66
Cedar Creek tributary 4 mi southeast of Beatrice in NW¼SW¼ sec. 8, T.3 N., R.7 E.	.43
Big Blue River tributary 1 mi north of Holmesville in SW¼NW¼ sec. 20, T.3 N., R.7 E.	0
Big Blue River at Holmesville in NE¼SW¼ sec. 29, T.3 N., R.7 E.	130
Mud Creek 2 mi southeast of Holmesville in SW¼SE¼ sec. 33, T.3 N., R.7 E.	1.7
Big Blue River at Blue Springs in NE¼SE¼ sec. 17, T.2 N., R.7 E.	215
Bills Creek at Blue Springs in NE¼NE¼ sec. 19, T.2 N., R.7 E.	0
Big Indian Creek 1 mi south of Wymore in NW¼SW¼ sec. 29, T.2 N., R.7 E.	6.2
Wildcat Creek 2 mi north of Barneston in NE¼NE¼ sec. 12, T.1 N., R.7 E.	0
Big Blue River at Barneston in SE¼NW¼ sec. 13, T.1 N., R.7 E.	194
Plum Creek 1 mi south of Barneston in NW¼SW¼ sec. 19, T.1 N., R.8 E.	2.3
Big Blue River at Oketo, Kans., in NW¼NE¼ sec. 23, T.1 S., R.7 E.	164

Little Blue River basin

Discharge measurements and observations of zero flow were made in the Little Blue River basin in Jefferson and Thayer Counties, Nebr., in October 1978. Although conditions were generally dry preceding the measurements, rain showers of 0.11 and 0.18 inch had fallen at Fairbury on October 22 and 23, respectively. Locations are listed in downstream order.

Location	Observation of zero flow or measured discharge, in cubic feet per second
	October 24-26, 1978
Little Blue River 2 mi southwest of Powell in NE¼SE¼ sec. 20, T.3 N., R.1 E.	56
Big Sandy Creek 3 mi west of Powell in SW¼NW¼ sec. 17, T.3 N., R.1 E.	24
Big Sandy Creek 1 mi west of Powell in NE¼NE¼ sec. 21, T.3 N., R.1 E.	29
Little Blue River 1 mi south of Powell in SW¼SW¼ sec. 23, T.3 N., R.1 E.	84
Little Blue River 1 mi southeast of Powell in SE¼SE¼ sec. 24, T.3 N., R.1 E.	90
Little Sandy Creek 3 mi southwest of Daykin in NW¼NW¼ sec. 29, T.4 N., R.1 E.	0
Little Sandy Creek 3 mi northwest of Powell in SE¼SE¼ sec. 33, T.4 N., R.1 E.	.08
Little Sandy Creek 1 mi north of Powell in SW¼SW¼ sec. 12, T.3 N., R.1 E.	.38
Little Sandy Creek 2 mi east of Powell in SE¼SE¼ sec. 18, T.3 N., R.2 E.	1.1
Whiskey Run tributary 3 mi north of Fairbury in NE¼NE¼ sec. 34, T.3 N., R.2 E.	0
Whiskey Run 3 mi northwest of Fairbury in NW¼NE¼ sec. 4, T.2 N., R.2 E.	.32
Little Blue River 2 mi northwest of Fairbury in SW¼SE¼ sec. 4, T.2 N., R.2 E.	91
Little Blue River 1 mi west of Fairbury in SE¼SE¼ sec. 9, T.2 N., R.2 E.	94
Little Blue River at Fairbury below dam in NE¼NE¼ sec. 22, T.2 N., R.2 E.	103
Little Blue River tributary 3 mi southwest of Fairbury in NW¼SW¼ sec. 28, T.2 N., R.2 E.	0
Little Blue River tributary 1 mi southwest of Fairbury in NE¼SW¼ sec. 22, T.2 N., R.2 E.	0
Little Blue River 1 mi south of Fairbury in NW¼NE¼ sec. 26, T.2 N., R.2 E.	99
Brawner Creek at Fairbury in NE¼SE¼ sec. 23, T.2 N., R.2 E.	0
Little Blue River 2 mi northwest of Endicott in SE¼SW¼ sec. 31, T.2 N., R.3 E.	107
Rose Creek at Hubbell in SW¼SW¼ sec. 36, T.1 N., R.2 W.	1.1
Spring Branch 6 mi north of Hubbell in SE¼SE¼ sec. 36, T.1 N., R.2 W.	0
Spring Branch 4 mi northeast of Hubbell in SE¼SW¼ sec. 8, T.1 N., R.2 W.	1.6
Rose Creek 1 mi west of Reynolds in SE¼SW¼ sec. 7, T.1 N., R.1 E.	8.7
Rose Creek 1 mi southwest of Reynolds in NE¼SE¼ sec. 18, T.1 N., R.1 E.	8.8
Buckley Creek 2 mi north of Reynolds in NW¼SW¼ sec. 33, T.2 N., R.1 E.	0
Buckley Creek 2 mi northeast of Reynolds in SE¼SE¼ sec. 33, T.2 N., R.1 E.	.06
Buckley Creek 3 mi east of Reynolds in NE¼SE¼ sec. 11, T.1 N., R.1 E.	.81
Rose Creek 6 mi southeast of Fairbury in NE¼NE¼ sec. 7, T.1 N., R.2 E.	12
Silver Creek 9 mi southeast of Fairbury in NE¼NW¼ sec. 32, T.1 N., R.2 E.	0
Silver Creek 8 mi southeast of Fairbury in SW¼SW¼ sec. 20, T.1 N., R.2 E.	.15
Silver Creek 7 mi southeast of Fairbury in SE¼SW¼ sec. 17, T.1 N., R.2 E.	.53
Rose Creek 5 mi south of Fairbury in SW¼NE¼ sec. 11, T.1 N., R.2 E.	12
Dry Creek 3 mi southwest of Endicott in SW¼SE¼ sec. 12, T.1 N., R.2 E.	0
Rose Creek 1 mi southwest of Endicott in SW¼SE¼ sec. 5, T.1 N., R.3 E.	15
Smith Creek 2 mi northeast of Endicott in NW¼SW¼ sec. 29, T.2 N., R.3 E.	0
Smith Creek at Endicott in SE¼NE¼ sec. 5, T.1 N., R.3 E.	.26
Little Blue River at Endicott in SE¼SW¼ sec. 4, T.1 N., R.3 E.	118
Rock Creek 2 mi southeast of Jansen in NE¼NE¼ sec. 10, T.2 N., R.3 E.	0
Rock Creek 3 mi northeast of Endicott in SE¼SW¼ sec. 23, T.2 N., R.3 E.	.06
Rock Creek at Endicott in SW¼SE¼ sec. 4, T.1 N., R.3 E.	.56
Coon Creek 4 mi south of Endicott in SE¼SE¼ sec. 28, T.1 N., R.3 E.	0
Coon Creek 2 mi southeast of Endicott in NW¼NE¼ sec. 15, T.1 N., R.3 E.	.26
Little Blue River at Steele City in NW¼NW¼ sec. 30, T.1 N., R.4 E.	110

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

NIOBRARA RIVER BASIN

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)
06459350 - AINSWORTH CANAL NR JOHNSTOWN NE (LAT 42 33 30 LONG 100 05 14)								
JUN , 1979								
04...	1535	60	158	8.4	23.5	79	0	26
AUG								
06...	1520	580	173	8.1	26.0	72	0	23
SEP								
25...	1505	10	185	7.8	23.0	66	0	21
06462450 - PLUM CREEK AT JOHNSTOWN, NEBR (LAT 42 34 08 LONG 100 06 22)								
JUN , 1979								
04...	1450	23	187	7.5	25.5	75	0	25
AUG								
06...	1440	29	173	8.0	26.0	68	0	22
SEP								
25...	1435	21	178	7.9	19.5	64	0	21
06462470 - PLUM CREEK NEAR JOHNSTOWN, NEBR (LAT 42 40 01 LONG 100 03 26)								
JUN , 1979								
04...	1630	68	178	7.8	24.5	73	0	24
AUG								
06...	1600	61	173	8.1	26.0	79	0	26
SEP								
25...	1610	60	180	7.7	20.0	64	0	21

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	BICARBONATE (MG/L AS HCO3) (00440)	CARBONATE (MG/L AS CO3) (00445)	ALKALINITY (MG/L AS CACO3) (00410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)
06459350 - AINSWORTH CANAL NR JOHNSTOWN NE (LAT 42 33 30 LONG 100 05 14)									
JUN , 1979									
04...	3.3	6.9	.3	5.5	80	10	82	9.5	1.3
AUG									
06...	3.5	7.2	.4	5.6	96	0	79	10	.8
SEP									
25...	3.4	7.1	.4	6.2	100	0	82	12	.8
06462450 - PLUM CREEK AT JOHNSTOWN, NEBR (LAT 42 34 08 LONG 100 06 22)									
JUN , 1979									
04...	3.1	7.2	.0	5.4	96	0	79	6.9	5.8
AUG									
06...	3.2	7.1	.4	5.4	92	0	75	9.6	1.6
SEP									
25...	2.8	7.2	.4	5.6	92	0	75	9.5	2.3
06462470 - PLUM CREEK NEAR JOHNSTOWN, NEBR (LAT 42 40 01 LONG 100 03 26)									
JUN , 1979									
04...	3.2	7.0	.4	5.7	96	0	79	5.5	1.4
AUG									
06...	3.3	7.1	.3	5.5	100	0	82	6.5	1.0
SEP									
25...	2.8	6.6	.4	5.6	100	0	82	6.3	1.0

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P) (00666)
NIOBRARA RIVER BASIN--Continued								
06459350 - AINSWORTH CANAL NR JOHNSTOWN NE (LAT 42 33 30 LONG 100 05 14)								
JUN , 1979								
04...	--	--	--	--	--	--	.00	--
AUG								
06...	--	--	--	--	--	--	.06	--
SEP								
25...	.8	27	136	127	.19	3.67	.01	.16
06462450 - PLUM CREEK AT JOHNSTOWN, NEBR (LAT 42 34 08 LONG 100 06 22)								
JUN , 1979								
04...	--	--	--	--	--	--	.79	--
AUG								
06...	--	--	--	--	--	--	.76	--
SEP								
25...	.8	52	153	151	.21	8.68	1.2	.18
06462470 - PLUM CREEK NEAR JOHNSTOWN, NEBR (LAT 42 40 01 LONG 100 03 26)								
JUN , 1979								
04...	--	--	--	--	--	--	.76	--
AUG								
06...	--	--	--	--	--	--	.58	--
SEP								
25...	.8	59	--	155	.01	1.62	.63	.11

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)
NIOBRARA RIVER BASIN--Continued								
06463050 - LONG PINE CREEK AT LONG PINE, NEBR. (LAT 42 32 59 LONG 099 42 23)								
JUN , 1979								
05...	1455	48	122	7.8	21.0	49	0	16
AUG								
07...	1630	51	128	7.9	21.0	62	3	21
SEP								
27...	0845	53	127	7.2	14.0	57	--	18
06463090 - BONE CREEK AT AINSWORTH, NEBR (LAT 42 32 51 LONG 099 52 33)								
JUN , 1979								
05...	1110	2.6	168	7.5	17.0	76	0	24
AUG								
07...	1230	1.9	185	7.5	27.0	73	0	23
SEP								
26...	1240	2.0	178	7.6	18.0	63	0	20
06463290 - SAND DRAW NR JOHNSTOWN NE (LAT 42 34 08 LONG 099 58 08)								
JUN , 1979								
05...	0835	1.1	159	7.2	14.0	69	0	23
AUG								
07...	0830	.18	139	7.5	21.0	59	0	19
SEP								
26...	0825	.88	132	6.9	13.0	52	0	17

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE (MG/L AS HCO3) (00440)	CAR-BONATE (MG/L AS CO3) (00445)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)
06463050 - LONG PINE CREEK AT LONG PINE, NEBR. (LAT 42 32 59 LONG 099 42 23)									
JUN , 1979									
05...	2.2	5.5	.3	4.1	72	0	59	4.2	.9
AUG									
07...	2.3	5.9	.3	4.0	72	0	59	5.0	1.0
SEP									
27...	3.0	5.7	.3	5.2	--	0	--	6.3	.9
06463090 - BONE CREEK AT AINSWORTH, NEBR (LAT 42 32 51 LONG 099 52 33)									
JUN , 1979									
05...	3.8	7.8	.4	5.1	92	0	75	5.6	2.4
AUG									
07...	3.8	7.4	.4	6.2	90	0	74	7.0	2.4
SEP									
26...	3.2	6.7	.4	5.5	88	0	72	6.3	1.9
06463290 - SAND DRAW NR JOHNSTOWN NE (LAT 42 34 08 LONG 099 58 08)									
JUN , 1979									
05...	2.9	6.9	.4	4.2	90	0	74	4.7	1.3
AUG									
07...	2.9	6.3	.4	4.4	85	0	70	6.1	1.0
SEP									
26...	2.4	6.7	.4	5.0	80	0	66	4.6	.9

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

NIOBRARA RIVER BASIN--Continued

06463050 - LONG PINE CREEK AT LONG PINE, NEBR. (LAT 42 32 59 LONG 099 42 23)

DATE	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	SOLIDS, DISSOLVED (TONS PER AC-FT) (70303)	SOLIDS, DISSOLVED (TONS PER DAY) (70302)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	PHOSPHORUS, DISSOLVED (MG/L AS P) (00666)
JUN , 1979								
05...	--	--	--	--	--	--	.93	--
AUG								
07...	--	--	--	--	--	--	.85	--
SEP								
27...	.3	58	132	--	.18	18.9	.99	.22

06463090 - BONE CREEK AT AINSWORTH, NEBR (LAT 42 32 51 LONG 099 52 33)

DATE	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	SOLIDS, DISSOLVED (TONS PER AC-FT) (70303)	SOLIDS, DISSOLVED (TONS PER DAY) (70302)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	PHOSPHORUS, DISSOLVED (MG/L AS P) (00666)
JUN , 1979								
05...	--	--	--	--	--	--	2.0	--
AUG								
07...	--	--	--	--	--	--	1.9	--
SEP								
26...	.3	50	150	147	.20	.81	2.3	.21

06463290 - SAND DRAW NR JOHNSTOWN NE (LAT 42 34 08 LONG 099 58 08)

DATE	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	SOLIDS, DISSOLVED (TONS PER AC-FT) (70303)	SOLIDS, DISSOLVED (TONS PER DAY) (70302)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	PHOSPHORUS, DISSOLVED (MG/L AS P) (00666)
JUN , 1979								
05...	--	--	--	--	--	--	.16	--
AUG								
07...	--	--	--	--	--	--	.31	--
SEP								
26...	.3	37	80	114	.11	.18	.05	.19

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

NIOBRARA RIVER BASIN--Continued

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)
06463310 - SAND DRAW NR MEADVILLE NE (LAT 42 38 10 LONG 099 51 10)								
JUN , 1979								
05...	0955	4.6	252	8.3	19.0	100	0	32
AUG								
07...	1110	5.7	271	8.3	27.0	100	0	31
SEP								
26...	1130	5.1	290	8.1	18.0	96	0	30
06463350 - BONE CREEK NEAR LONG PINE, NEBR (LAT 42 40 16 LONG 099 46 06)								
JUN , 1979								
05...	1305	60	227	8.1	26.0	85	0	27
AUG								
07...	1430	46	238	8.0	30.0	92	0	29
SEP								
26...	1515	50	239	7.8	25.0	85	0	27

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE (MG/L AS HCO3) (00440)	CAR-BONATE (MG/L AS CO3) (00445)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)
06463310 - SAND DRAW NR MEADVILLE NE (LAT 42 38 10 LONG 099 51 10)									
JUN , 1979									
05...	5.1	14	.6	7.8	130	0	107	12	3.3
AUG									
07...	5.4	15	.7	8.9	150	0	123	12	3.0
SEP									
26...	5.2	16	.7	9.5	140	0	115	14	3.3
06463350 - BONE CREEK NEAR LONG PINE, NEBR (LAT 42 40 16 LONG 099 46 06)									
JUN , 1979									
05...	4.3	10	.5	7.7	110	0	90	8.7	3.6
AUG									
07...	4.7	11	.5	8.5	120	0	98	11	5.3
SEP									
26...	4.2	9.7	.5	8.1	120	0	98	11	3.4

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P) (00666)
06463310 - SAND DRAW NR MEADVILLE NE (LAT 42 38 10 LONG 099 51 10)								
JUN , 1979								
05...	--	--	--	--	--	--	2.4	--
AUG								
07...	--	--	--	--	--	--	2.2	--
SEP								
26...	.3	30	194	192	.26	2.67	3.4	.27
06463350 - BONE CREEK NEAR LONG PINE, NEBR (LAT 42 40 16 LONG 099 46 06)								
JUN , 1979								
05...	--	--	--	--	--	--	.92	--
AUG								
07...	--	--	--	--	--	--	1.3	--
SEP								
26...	.4	45	174	175	.24	23.5	1.5	.26

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)
NIOBRARA RIVER BASIN--Continued									
06465050 - EAGLE CREEK NEAR MIDWAY NEBR (LAT 42 38 02 LONG 098 46 29)									
APR , 1979									
16...	1350	21	264	7.6	18.0	120	26	41	4.8
SEP									
17...	1630	16	278	7.5	23.0	110	8	36	4.5
06465100 - EASTBRANCH EAGLE CREEK NR MIDWAY NEBR (LAT 42 37 30 LONG 098 45 56)									
APR , 1979									
16...	1320	8.6	251	8.2	16.5	120	2	41	4.8
SEP									
17...	1535	6.2	273	7.9	21.5	130	0	44	4.0
06465398 - REDBIRD CREEK NR MEEK NEBRASKA (LAT 42 39 33 LONG 098 33 31)									
APR , 1979									
16...	1145	17	199	7.4	14.0	90	15	30	3.6
SEP									
17...	1320	9.8	193	8.0	22.0	87	4	30	2.9
06465420 - BLACKBIRD CREEK NEAR MEEK NEBR (LAT 42 39 46 LONG 098 34 28)									
APR , 1979									
16...	1230	8.8	274	7.9	14.0	130	12	45	4.8
SEP									
17...	1425	4.0	257	7.9	22.5	120	8	41	3.8

DATE	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)
06465050 - EAGLE CREEK NEAR MIDWAY NEBR (LAT 42 38 02 LONG 098 46 29)									
APR , 1979									
16...	8.9	.4	5.6	96	13	4.1	.3	38	194
SEP									
17...	9.8	.4	6.8	100	16	4.2	.3	47	203
06465100 - EASTBRANCH EAGLE CREEK NR MIDWAY NEBR (LAT 42 37 30 LONG 098 45 56)									
APR , 1979									
16...	6.7	.3	4.8	120	6.1	1.9	.3	40	181
SEP									
17...	6.8	.3	5.7	130	11	1.7	.3	58	213
06465398 - REDBIRD CREEK NR MEEK NEBRASKA (LAT 42 39 33 LONG 098 33 31)									
APR , 1979									
16...	7.4	.3	4.5	75	13	2.5	.3	38	153
SEP									
17...	7.1	.3	5.2	83	13	2.0	.2	52	169
06465420 - BLACKBIRD CREEK NEAR MEEK NEBR (LAT 42 39 46 LONG 098 34 28)									
APR , 1979									
16...	9.0	.3	4.8	120	14	3.3	.3	37	197
SEP									
17...	7.7	.3	5.9	110	14	2.3	.3	54	202

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P) (00666)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)
NIOBRARA RIVER BASIN--Continued								
06465050 - EAGLE CREEK NEAR MIDWAY NEBR (LAT 42 38 02 LONG 098 46 29)								
APR , 1979								
16...	.26	11.0	4.7	--	.13	80	50	10
SEP								
17...	.28	8.77	4.2	.15	.14	30	40	0
06465100 - EASTBRANCH EAGLE CREEK NR MIDWAY NEBR (LAT 42 37 30 LONG 098 45 56)								
APR , 1979								
16...	.25	4.20	.71	--	.02	60	10	10
SEP								
17...	.29	3.57	.81	.04	.03	30	10	20
06465398 - REDBIRD CREEK NR MEEK NEBRASKA (LAT 42 39 33 LONG 098 33 31)								
APR , 1979								
16...	.21	7.02	1.8	--	.07	70	40	20
SEP								
17...	.23	4.47	1.4	.07	.06	30	20	10
06465420 - BLACKBIRD CREEK NEAR MEEK NEBR (LAT 42 39 46 LONG 098 34 24)								
APR , 1979								
16...	.27	4.68	1.4	--	.05	60	40	50
SEP								
17...	.27	2.18	1.5	.07	.06	30	30	10

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)
PLATTE RIVER BASIN									
06778860 - FARWELL CANAL AT HWY 58 ABV SHERMAN RES NE (LAT 41 22 23 LONG 099 00 44)									
OCT , 1978 08...	1315	405	198	7.5	13.5	72	0	23	3.6
MAY , 1979 29...	1415	66	198	8.2	25.0	88	0	29	3.8
JUL 30...	1255	347	184	8.6	27.0	83	0	26	4.4
06781530 - DEER CREEK NEAR BOELUS NE (LAT 41 05 37 LONG 098 42 37)									
OCT , 1978 05...	1410	.02	800	7.7	11.0	400	52	110	31
MAY , 1979 30...	1445	.47	958	7.7	16.5	510	88	140	40
JUL 31...	1330	1.8	343	7.4	20.0	160	0	45	12
06784400 - OAK CREEK NEAR FARWELL NE (LAT 41 11 30 LONG 098 41 25)									
OCT , 1978 05...	1455	13	588	7.8	12.5	270	0	77	18
MAY , 1979 30...	1520	18	498	7.9	18.0	240	0	70	15
JUL 31...	1410	24	445	7.9	21.0	210	0	61	15

DATE	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE (MG/L AS HCO3) (00440)	CAR-BONATE (MG/L AS CO3) (00445)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)
06778860 - FARWELL CANAL AT HWY 58 ABV SHERMAN RES NE (LAT 41 22 23 LONG 099 00 44)									
OCT , 1978 08...	7.5	.4	5.7	104	0	85	9.7	1.4	.49
MAY , 1979 29...	8.1	.4	7.2	120	0	98	7.6	1.5	.08
JUL 30...	7.5	.4	6.8	80	16	92	10	1.1	.21
06781530 - DEER CREEK NEAR BOELUS NE (LAT 41 05 37 LONG 098 42 37)									
OCT , 1978 05...	17	.4	19	424	0	348	100	10	.06
MAY , 1979 30...	20	.4	18	520	0	427	120	13	.17
JUL 31...	10	.3	13	200	0	164	21	2.8	.51
06784400 - OAK CREEK NEAR FARWELL NE (LAT 41 11 30 LONG 098 41 25)									
OCT , 1978 05...	19	.5	11	364	0	299	22	5.5	1.5
MAY , 1979 30...	17	.5	11	300	0	246	15	4.7	1.4
JUL 31...	15	.4	11	270	0	221	18	4.7	1.4

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)
PLATTE RIVER BASIN--Continued									
06784500 - OAK CREEK NR DANNEBROG NEBR (LAT 41 07 10 LONG 098 36 45)									
OCT , 1978									
05...	1255	18	648	7.9	12.0	300	0	88	19
MAY , 1979									
30...	1325	25	553	7.9	17.0	270	7	81	17
JUL									
31...	1215	41	439	7.9	21.0	210	0	59	14
06784505 - DRY C NR DANNEBROG NE (LAT 41 06 18 LONG 098 36 16)									
OCT , 1978									
05...	1335	1.4	887	7.9	11.0	390	52	110	27
MAY , 1979									
30...	1410	2.2	978	7.9	15.5	480	120	140	31
JUL									
31...	1240	4.5	546	7.8	19.0	250	32	72	18
06784750 - TURKEY CREEK NEAR NYSTED NE (LAT 41 10 48 LONG 098 36 50)									
OCT , 1978									
05...	1530	1.5	720	7.8	14.0	300	0	76	26
MAY , 1979									
30...	1610	17	756	7.7	18.0	330	0	89	27
JUL									
31...	1440	6.7	532	8.0	22.0	230	0	65	17

DATE	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE (MG/L AS HCO3) (00440)	CAR-BONATE (MG/L AS CO3) (00445)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)
06784500 - OAK CREEK NR DANNEBROG NEBR (LAT 41 07 10 LONG 098 36 45)									
OCT , 1978									
05...	21	.5	12	384	0	315	37	7.3	1.4
MAY , 1979									
30...	17	.4	11	320	0	262	35	6.7	.32
JUL									
31...	15	.5	12	260	0	213	23	4.9	1.1
06784505 - DRY C NR DANNEBROG NE (LAT 41 06 18 LONG 098 36 16)									
OCT , 1978									
05...	41	.9	17	412	0	338	120	18	1.8
MAY , 1979									
30...	39	.8	17	430	0	353	160	14	4.8
JUL									
31...	22	.6	15	270	0	221	64	7.3	2.3
06784750 - TURKEY CREEK NEAR NYSTED NE (LAT 41 10 48 LONG 098 36 50)									
OCT , 1978									
05...	47	1.2	19	424	0	348	42	13	.84
MAY , 1979									
30...	43	1.0	18	450	0	369	34	11	1.2
JUL									
31...	28	.8	15	320	0	262	24	6.8	1.4

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

PLATTE RIVER BASIN--Continued

06784810 - TURKEY CREEK NORTHEAST OF DANNEBROG NE (LAT 41 09 28 LONG 098 31 06)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)
OCT , 1978									
05...	1110	5.3	765	7.9	10.0	310	0	86	24
MAY , 1979									
30...	1200	9.0	792	7.8	16.0	350	0	100	25
JUL									
31...	1105	33	408	7.5	21.0	180	0	50	13

06784820 - TURKEY CREEK TRIBUTARY NR ST PAUL NE (LAT 41 10 55 LONG 098 29 39)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)
OCT , 1978									
05...	1045	.52	630	8.0	8.0	310	0	90	21
MAY , 1979									
30...	1135	.84	608	7.9	16.0	320	24	90	23
JUL									
31...	1035	35	326	7.8	21.0	160	0	46	12

06785020 - UNNAMED CREEK AT ST PAUL NE (LAT 41 12 48 LONG 098 28 35)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)
OCT , 1978									
05...	1020	.38	628	8.3	9.0	310	0	84	24
MAY , 1979									
30...	1105	.34	537	8.1	16.0	270	0	69	24
JUL									
31...	1010	5.6	281	7.6	21.0	130	0	37	9.5

06784810 - TURKEY CREEK NORTHEAST OF DANNEBROG NE (LAT 41 09 28 LONG 098 31 06)

DATE	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE (MG/L AS HCO3) (00440)	CAR-BONATE (MG/L AS CO3) (00445)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)
OCT , 1978									
05...	45	1.1	19	416	0	341	60	13	3.5
MAY , 1979									
30...	42	1.0	18	430	0	353	53	12	2.9
JUL									
31...	19	.6	13	220	0	180	27	6.0	2.1

06784820 - TURKEY CREEK TRIBUTARY NR ST PAUL NE (LAT 41 10 55 LONG 098 29 39)

DATE	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE (MG/L AS HCO3) (00440)	CAR-BONATE (MG/L AS CO3) (00445)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)
OCT , 1978									
05...	14	.3	9.0	384	0	315	31	5.7	.93
MAY , 1979									
30...	17	.4	8.9	360	0	295	32	5.9	28
JUL									
31...	9.3	.3	12	200	0	164	16	3.5	.54

06785020 - UNNAMED CREEK AT ST PAUL NE (LAT 41 12 48 LONG 098 28 35)

DATE	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE (MG/L AS HCO3) (00440)	CAR-BONATE (MG/L AS CO3) (00445)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)
OCT , 1978									
05...	16	.4	16	388	0	318	34	4.9	.05
MAY , 1979									
30...	13	.3	13	330	0	271	27	4.2	.00
JUL									
31...	9.6	.4	9.6	170	0	139	13	1.9	.08

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

PLATTE RIVER BASIN--Continued

06788495 - DANE C AT ORD, NEBR. (LAT 41 36 31 LONG 098 56 36)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	COLOR (PLAT-INUM-COBALT UNITS) (00080)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)
APR , 1979 16...	1145	.26	819	7.8	13.5	--	370	24	110
SEP 23...	0935	1.8	353	7.1	14.0	30	140	0	44

06788990 - MIRA C AT NORTH LOUP, NEBR. (LAT 41 29 54 LONG 098 46 46)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	COLOR (PLAT-INUM-COBALT UNITS) (00080)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)
APR , 1979 16...	1400	2.6	636	8.3	18.5	--	300	0	81
SEP 21...	1445	1.2	610	7.2	17.5	20	260	0	75

06788495 - DANE C AT ORD, NEBR. (LAT 41 36 31 LONG 098 56 36)

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)
APR , 1979 16...	24	27	.6	22	350	64	15	.3	32
SEP 23...	8.5	13	.5	10	160	21	4.1	.4	51

06788990 - MIRA C AT NORTH LOUP, NEBR. (LAT 41 29 54 LONG 098 46 46)

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)
APR , 1979 16...	23	24	.6	16	300	27	8.0	.3	23
SEP 21...	17	24	.7	15	290	31	5.2	.4	48

06788495 - DANE C AT ORD, NEBR. (LAT 41 36 31 LONG 098 56 36)

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P) (00666)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)
APR , 1979 16...	516	.70	.36	2.5	--	.46	120	30	220
SEP 23...	255	.35	1.24	1.5	.28	.22	50	20	90

06788990 - MIRA C AT NORTH LOUP, NEBR. (LAT 41 29 54 LONG 098 46 46)

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P) (00666)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)
APR , 1979 16...	387	.53	2.79	.79	--	.40	140	20	600
SEP 21...	404	.55	1.31	3.0	.35	.30	100	10	240

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

PLATTE RIVER BASIN--Continued

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)
06790245 - AUGER CREEK AT ELBA NE (LAT 41 17 38 LONG 098 34 26)									
OCT , 1978									
05...	0920	.37	571	7.8	9.0	270	0	76	19
MAY , 1979									
30...	0930	1.0	653	8.0	17.0	340	24	95	24
JUL									
31...	0900	.21	689	7.6	18.0	370	58	110	24
06790255 - UNNAMED CREEK SOUTH OF ELBA NE (LAT 41 16 22 LONG 098 33 24)									
OCT , 1978									
05...	0950	.23	538	7.7	8.0	260	0	72	20
MAY , 1979									
30...	1015	.04	467	7.8	16.0	250	1	66	20
JUL									
31...	0945	.06	539	8.1	20.0	300	6	81	24

DATE	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE (MG/L AS HCO3) (00440)	CAR-BONATE (MG/L AS CO3) (00445)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)
06790245 - AUGER CREEK AT ELBA NE (LAT 41 17 38 LONG 098 34 26)									
OCT , 1978									
05...	17	.5	11	352	0	289	24	6.9	.52
MAY , 1979									
30...	21	.5	9.8	380	0	312	47	9.6	3.4
JUL									
31...	18	.4	13	380	0	312	68	15	1.4
06790255 - UNNAMED CREEK SOUTH OF ELBA NE (LAT 41 16 22 LONG 098 33 24)									
OCT , 1978									
05...	11	.3	7.1	348	0	285	12	2.7	.04
MAY , 1979									
30...	11	.3	6.5	300	0	246	11	3.3	.00
JUL									
31...	11	.3	7.4	360	0	295	13	3.1	.00

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

PLATTE RIVER BASIN--Continued

06801330 - SALT CREEK NEAR ROCA, NEBR. (LAT 40 38 41 LONG 096 41 11)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	TURBIDITY (JTU) (00070)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L) (00310)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)
NOV , 1978 14...	0915	7.0	1600	8.1	3.0	5	11.2	3.4	200	1060	--	--
FEB , 1979 06...	0900	7.7	1530	7.5	1.0	6	9.6	4.1	K300	K120	360	130
MAY 31...	0915	12	860	8.1	16.0	20	7.6	6.6	440	372	--	--
AUG 23...	1015	4.2	1020	8.0	21.5	25	6.5	2.8	1200	200	290	56

06803190 - SALT CREEK AT 14TH STREET, AT LINCOLN, NEBR. (LAT 40 50 03 LONG 096 42 03)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	TURBIDITY (JTU) (00070)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L) (00310)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)
NOV , 1978 14...	1100	22	9000	8.1	3.5	7	14.6	2.3	2500	460	--	--
FEB , 1979 06...	1130	31	7450	7.3	1.0	6	11.5	4.4	K500	168	480	180
MAY 31...	1400	44	6400	8.3	21.0	6	11.1	2.7	340	84	--	--
AUG 27...	1345	45	3900	8.0	23.5	200	7.6	6.4	27000	K21000	240	51

06803493 - OAK CREEK AT 14TH STREET, AT LINCOLN, NEBR. (LAT 40 50 10 LONG 096 42 03)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	TURBIDITY (JTU) (00070)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L) (00310)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)
NOV , 1978 14...	1155	17	6200	8.2	4.0	6	14.0	3.6	K70	144	--	--
FEB , 1979 06...	1245	12	6300	7.4	1.0	7	7.7	4.0	K30	K24	440	66
MAY 31...	1420	44	3770	8.2	19.0	15	10.4	1.8	K140	108	--	--
AUG 27...	1430	161	604	7.8	20.0	900	7.3	7.4	K68000	K300000	81	8

06801330 - SALT CREEK NEAR ROCA, NEBR. (LAT 40 38 41 LONG 096 41 11)

DATE	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	ALKALINITY (MG/L AS CACO3) (00410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)
NOV , 1978 14...	--	--	--	--	--	--	--	250	--	--	853	--
FEB , 1979 06...	100	26	170	3.9	7.5	230	160	260	.4	31	--	894
MAY 31...	--	--	--	--	--	--	--	77	--	--	556	--
AUG 23...	85	18	98	2.5	6.5	230	97	120	.4	2.8	--	567

06803190 - SALT CREEK AT 14TH STREET, AT LINCOLN, NEBR. (LAT 40 50 03 LONG 096 42 03)

DATE	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	ALKALINITY (MG/L AS CACO3) (00410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)
NOV , 1978 14...	--	--	--	--	--	--	--	2400	--	--	5220	--
FEB , 1979 06...	130	37	1600	32	14	300	370	2400	.5	23	--	4760
MAY 31...	--	--	--	--	--	--	--	1700	--	--	3660	--
AUG 27...	62	21	700	20	12	190	180	1000	.5	9.5	--	2100

06803493 - OAK CREEK AT 14TH STREET, AT LINCOLN, NEBR. (LAT 40 50 10 LONG 096 42 03)

DATE	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	ALKALINITY (MG/L AS CACO3) (00410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)
NOV , 1978 14...	--	--	--	--	--	--	--	1600	--	--	3210	--
FEB , 1979 06...	120	33	1400	29	14	370	270	1900	.4	26	--	3990
MAY 31...	--	--	--	--	--	--	--	890	--	--	2070	--
AUG 27...	24	5.1	77	3.7	8.2	73	26	120	.5	7.3	--	312

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

PLATTE RIVER BASIN--Continued

06801330 - SALT CREEK NEAR ROCA, NEBR. (LAT 40 38 41 LONG 096 41 11)

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P) (00666)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)
NOV , 1978												
14...	1.16	16.1	.21	.05	.19	.24	.45	.23	--	--	--	--
FEB , 1979												
06...	1.22	18.6	.94	.24	5.9	6.1	7.0	.21	.16	290	40	70
MAY												
31...	.76	18.3	.97	.17	1.1	1.3	2.3	.38	--	--	--	--
AUG												
23...	.77	6.46	.33	.05	.74	.79	1.1	.26	.17	320	10	190

06803190 - SALT CREEK AT 14TH STREET, AT LINCOLN, NEBR. (LAT 40 50 03 LONG 096 42 03)

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P) (00666)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)
NOV , 1978												
14...	7.10	314	.43	.38	.23	.61	1.0	.24	--	--	--	--
FEB , 1979												
06...	6.47	398	1.0	.73	.47	1.2	2.2	.19	.12	520	40	440
MAY												
31...	4.98	435	.43	.20	.62	.82	1.3	.21	--	--	--	--
AUG												
27...	2.86	255	.63	.46	.64	1.1	1.7	.52	.51	250	20	30

06803493 - OAK CREEK AT 14TH STREET, AT LINCOLN, NEBR. (LAT 40 50 10 LONG 096 42 03)

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P) (00666)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)
NOV , 1978												
14...	4.37	147	.49	.33	.22	.55	1.0	.22	--	--	--	--
FEB , 1979												
06...	5.43	129	1.5	.89	.51	1.4	2.9	.21	.16	470	20	940
MAY												
31...	2.82	246	.63	.26	.59	.85	1.5	.18	--	--	--	--
AUG												
27...	.42	136	1.2	.39	1.7	2.1	3.3	1.0	.15	80	110	10

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	TURBIDITY (JTU) (00070)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L) (00310)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)
PLATTE RIVER BASIN--Continued												
06805499 - MILL CREEK AT LOUISVILLE NEBR (LAT 41 00 13 LONG 096 09 35)												
MAY , 1979												
15...	1030	2.6	545	8.4	13.5	--	12.7	4.6	4000	--	240	16
06805525 - CEDAR CREEK NEAR LOUISVILLE NEBR (LAT 41 00 05 LONG 096 07 15)												
MAY , 1979												
15...	1200	6.9	465	8.6	16.5	--	16.2	3.6	280	--	200	24
06805565 - FOURMILE CREEK NEAR PLATTSMOUTH, NEBR. (LAT 41 01 02 LONG 095 57 46)												
MAY , 1979												
15...	1245	24	490	8.9	16.0	--	15.2	3.7	K150	--	230	26

DATE	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	ALKALINITY (MG/L AS CACO3) (00410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)
06805499 - MILL CREEK AT LOUISVILLE NEBR (LAT 41 00 13 LONG 096 09 35)												
MAY , 1979												
15...	65	18	25	.7	8.7	220	45	17	.3	7.9	--	320
06805525 - CEDAR CREEK NEAR LOUISVILLE NEBR (LAT 41 00 05 LONG 096 07 15)												
MAY , 1979												
15...	57	15	23	.7	3.8	180	29	6.9	.4	8.6	--	252
06805565 - FOURMILE CREEK NEAR PLATTSMOUTH, NEBR. (LAT 41 01 02 LONG 095 57 46)												
MAY , 1979												
15...	61	18	18	.5	2.5	200	31	5.4	.3	14	--	271

DATE	SOLIDS, DISSOLVED (TONS PER AC-FT) (70303)	SOLIDS, DISSOLVED (TONS PER DAY) (70302)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, DISSOLVED (MG/L AS P) (00666)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)
06805499 - MILL CREEK AT LOUISVILLE NEBR (LAT 41 00 13 LONG 096 09 35)												
MAY , 1979												
15...	.44	2.26	2.5	.08	.24	.32	2.8	.16	.12	80	20	270
06805525 - CEDAR CREEK NEAR LOUISVILLE NEBR (LAT 41 00 05 LONG 096 07 15)												
MAY , 1979												
15...	.34	4.72	5.4	.01	.53	.54	5.9	.08	.05	50	10	150
06805565 - FOURMILE CREEK NEAR PLATTSMOUTH, NEBR. (LAT 41 01 02 LONG 095 57 46)												
MAY , 1979												
15...	.37	17.6	7.9	.01	.28	.29	8.2	.12	.12	50	10	230

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)
WEEPING WATER CREEK BASIN											
06806460 - WEEPING WATER CR AT WEEPING WATER, NEBR. (LAT 40 51 18 LONG 096 07 10)											
MAY , 1979											
16...	1030	28	570	8.2	17.0	8.7	4.5	490	260	26	73
06806495 - S BR WEEPING WATER CREEK NEAR UNION NEBR (LAT 40 48 45 LONG 095 56 43)											
MAY , 1979											
16...	1230	26	500	8.4	18.0	9.6	4.3	700	230	52	67
06806501 - WEEPING WATER C NR UNION, NEBR. (LAT 40 47 46 LONG 095 54 17)											
MAY , 1979											
16...	1230	114	570	8.3	18.0	8.3	3.9	667	260	31	75

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)
06806460 - WEEPING WATER CR AT WEEPING WATER, NEBR. (LAT 40 51 18 LONG 096 07 10)											
MAY , 1979											
16...	18	30	.8	4.2	230	51	8.1	.4	12	335	.46
06806495 - S BR WEEPING WATER CREEK NEAR UNION NEBR (LAT 40 48 45 LONG 095 56 43)											
MAY , 1979											
16...	15	23	.7	4.8	200	34	6.0	.4	11	291	.40
06806501 - WEEPING WATER C NR UNION, NEBR. (LAT 40 47 46 LONG 095 54 17)											
MAY , 1979											
16...	18	21	.6	3.8	230	45	6.9	.4	14	323	.44

DATE	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P) (00666)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)
06806460 - WEEPING WATER CR AT WEEPING WATER, NEBR. (LAT 40 51 18 LONG 096 07 10)											
MAY , 1979											
16...	25.8	3.9	.03	.37	.40	4.3	.32	.22	70	0	110
06806495 - S BR WEEPING WATER CREEK NEAR UNION NEBR (LAT 40 48 45 LONG 095 56 43)											
MAY , 1979											
16...	20.4	4.7	.04	.26	.30	5.0	.21	.14	60	10	200
06806501 - WEEPING WATER C NR UNION, NEBR. (LAT 40 47 46 LONG 095 54 17)											
MAY , 1979											
16...	99.4	5.0	.02	.33	.35	5.4	.28	.17	60	10	180

ADAMS COUNTY

403403098244001. Local number 7N-10W-23AD.

LOCATION.--Lat 40°34'03", long 98°24'40", NW1/4NE1/4 sec.23, T.7 N., R.10 W., Hydrologic Unit 10270206, 0.5 mi (0.8 km) west of the west junction of Routes 281 and 6, in the south part of Hastings. Owner: Henry Fricke.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled unused irrigation water-table well, diameter 8 in (0.20 m), depth 155 ft (47.2 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 1,927 ft (587 m). Measuring point: Top of casing 1.0 ft (0.30 m) above land-surface datum.

REMARKS.--Large amounts of ground water are pumped from municipal and industrial wells located east and northeast of the well and from irrigation wells in other directions.

PERIOD OF RECORD.--August 1934 to October 1936; August 1948 to December 1950; and January 1951 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 99.95 ft (30.46 m) below land-surface datum, Jan. 22, 1935; lowest, 123.92 ft (37.77 m) below land-surface datum, Aug. 13, 1979.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
05	119.33	118.83	118.63	118.18	117.95	117.82	117.62	117.18	118.24	117.26	.....	122.55
10	119.28	118.94	118.56	118.07	117.92	.....	117.38	117.24M	117.26	117.08	121.75	121.93
15	119.29	118.78	118.47	118.11	118.11	117.80	117.43	117.21	117.33	119.02	121.96	120.10
20	119.15	118.75	118.44	117.99	.....	117.75	.....	117.20	.....	122.10	122.56	119.99
25	119.10	118.66	118.43	117.98	117.88	117.67	117.39	117.20	117.31	122.37	123.03	119.86
EOM	119.02	118.64	118.06	.....	117.80	.....	117.30	.....	117.11	.....	121.24	119.71

WTR YEAR 1979 MAX 117.00 JULY 10, 1979 MIN 123.92 AUG 13, 1979

M TAPE MEASUREMENT

BLAINE COUNTY

414958100061501. Local number 22N-24W-33CA.

LOCATION.--Lat 41°49'58", long 100°06'15", NE1/4SW1/4 sec.33, T.22 N., R.24 W., Hydrologic Unit 10210001, approximately 500 ft (152 m) west of junction of State Highways 91 and 2 north of Dunning. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits, undifferentiated, of Quaternary age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 1 in (0.03 m), depth 13 ft (4.0 m), screened 11 to 13 ft (3.4 to 4.0 m).

DATUM.--Altitude of land-surface datum is 2,618 ft (798 m). Measuring point: Top of casing 1.40 ft (0.43 m) above land-surface datum.

PERIOD OF RECORD.--December 1934 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.04 ft (0.32 m) below land-surface datum, Mar. 8, 1950; lowest, 6.97 ft (2.12 m) below land-surface datum, Aug. 8, 1951.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 17	4.79	DEC 18	4.01	FEB 21	3.36	APR 24	2.75	JUN 25	3.64	AUG 30	4.77
NOV 7	4.41	JAN 9	3.89	MAR 14	2.48	MAY 14	2.87	JUL 16	3.90	SEP 18	4.42
NOV 28	4.25	JAN 29	3.63	APR 3	2.20	JUN 4	3.36	AUG 6	4.40		

BOONE COUNTY

413323098074501. Local number 18N-7W-4CA.

LOCATION.--Lat 41°33'23", long 98°07'45", NE1/4SW1/4 sec.4, T.18 N., R.7 W., Hydrologic Unit 10210010, at junction of State Highways 52 and 56 approximately 1 mi (1.6 km) east of Cedar Rapids. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 1 in (0.03 m), depth 22 ft (6.7 m), screened 20 to 22 ft (6.1 to 6.7 m).

DATUM.--Altitude of land-surface datum is 1,762 ft (537 m). Measuring point: Top of casing 2.90 ft (0.88 m) above land-surface datum.

PERIOD OF RECORD.--November 1936 to October 1942; April 1948 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.57 ft (2.61 m) below land-surface datum, May 4, 1973; lowest, 15.17 ft (4.62 m) below land-surface datum, Oct. 26, 1940.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 8	11.54	MAY 3	9.91								

BOX BUTTE COUNTY

420945102551501. Local number 25N-48W-4DDD.

LOCATION.--Lat 42°09'45", long 102°55'15", SE1/4SE1/4SE1/4 sec.4, T.25 N., R.48 W., Hydrologic Unit 10150003, approximately 3.6 miles (5.8 km) south and 2.8 mi (4.5 km) east of Berea. Owner: U.S. Geological Survey.

AQUIFER.--Marsland Formation of Miocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 1.25 in (0.03 m), depth 204 ft (62.2 m), screened 190 to 193 ft (57.9 to 58.8 m).

DATUM.--Altitude of land-surface datum is 4,032.95 ft (1,229.24 m). Measuring point: Top of pipe 2.00 ft (0.61 m) above land-surface datum.

REMARKS.--Water levels in vicinity of well are affected by large withdrawals of ground water for irrigation use. No well reading made in 1979 water year.

PERIOD OF RECORD.--April 1946 to October 1977.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 63.14 ft (19.25 m) below land-surface datum, Jan. 25, 1950; lowest, 94.97 ft (28.95 m) below land-surface datum, Oct. 21, 1978.

BROWN COUNTY

423307099494501. Local number 30N-21W-19CC.

LOCATION.--Lat 42°33'07", long 99°49'45", SW1/4SW1/4 sec.19, T.30 N., R.21 W., Hydrologic Unit 10150004, 1.2 mi (1.9 km) east of junction of U.S. Highway 20 and Route 7 in Ainsworth. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6 in (0.15 m), depth 52 ft (15.8 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 2,511.44 ft (765.49 m). Measuring point: Top of casing 0.20 ft (0.06 m) above land-surface datum.

REMARKS.--Water levels in well are affected by pumpage of ground water for irrigation and seepage losses from nearby irrigation project.

PERIOD OF RECORD.--November 1947 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 34.17 ft (10.42 m) below land-surface datum, Dec. 22, 1978; lowest, 40.96 ft ((12.48 m) below land-surface datum, Sept. 7, 1965.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
05	34.56	34.33	34.25	34.36	-----	34.60	34.62	34.75	34.85	34.86	34.88	34.67
10	34.47	34.33	34.25	34.38	-----	34.65	34.72	34.85	34.90	34.87	34.88	34.65
15	34.42	34.27	34.24	-----	34.60	34.68	34.79	34.87	34.92	35.01	34.87	34.61
20	34.36	34.28	34.22	-----	34.51	34.70	34.83	34.88	34.92	35.04	34.83	34.50
25	34.36	34.22	-----	-----	34.61	34.72	34.82	34.86	34.93	35.03	34.73	34.41
EOM	34.36	34.21	-----	-----	34.57	34.76	34.81	34.86	34.89	34.95	34.64	34.32

WTR YEAR 1979 MAX 34.17 DEC 22, 1978 MIN 35.06 JUL 22, 1979

BUFFALO COUNTY

404618098504401. Local number 9N-14W-1DC.

LOCATION.--Lat 40°46'18", long 98°50'44", SE1/4SE1/4 sec.1, T.9 N., R.14 W., Hydrologic Unit 10200102, 1.3 mi (2.1 km) north of the intersection of Route 30 and the North-South range-line road on the east side of Gibbon, then 0.5 mi (0.8 km) west on section-line road. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 8 in (0.20 m), depth 38 ft (11.6 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 2,060.43 ft (628.02 m). Measuring point: Top of casing 0.80 ft (0.24 m) above land-surface datum.

REMARKS.--Water levels in well are affected by pumpage from nearby irrigation wells.

PERIOD OF RECORD.--July 1946 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 15.36 ft (4.68 m) below land-surface datum, June 11, 1952; lowest, 29.11 ft (8.87 m) below land-surface datum, Sept. 9, 1976.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
05	27.56	26.88	26.55	.....	.....	25.87	25.42	25.07	24.75	24.42	25.83	27.20
10	27.41	26.81	26.49	.....	26.03	25.82	25.35	25.03	24.73	24.31	26.44	27.07
15	27.28	26.76	26.42	.....	26.06	25.73	25.31	24.99	24.66	24.21	26.56	26.68
20	27.17	26.70	26.37	.....	25.96	25.66	25.27	24.93	24.63	24.37	26.86	26.45
25	27.06	26.64	26.34	.....	25.97	25.58	25.18	24.88	24.59	25.02	26.83	26.29
EOM	26.98	26.89	26.30	.....	25.90	25.51	25.13	24.82	24.52	25.65	27.14	26.14

WTR YEAR 1979 MAX 24.15 JULY 20, 1979 MIN 27.68 OCT 1, 1978

BUFFALO COUNTY

404345098560001. Local number 9N-14W-19DD.

LOCATION.--Lat 40°43'45", long 98°56'00", SE1/4SE1/4 sec.19, T.9 N., R.14 W., Hydrologic Unit 10200102, 4.7 mi (7.6 km) west-southwest of Gibbon on U.S. Highway 30. Owner: Robert D. Lewis.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 24 in (0.61 m), depth 54 ft (16.5 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 2,102.16 ft (640.74 m). Measuring point: Hole in pump base 0.70 ft (0.21 m) above land-surface datum.

REMARKS.--Water levels in well are affected by pumping of well and of nearby wells for irrigation supplies.

PERIOD OF RECORD.--October 1930 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 22.55 ft (6.87 m) below land-surface datum, June 9, 1931; lowest, 35.20 ft (10.73 m) below land-surface datum, Aug. 30, 1974.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 20	34.16	MAY 8	31.70								

BUTLER COUNTY

411420097173002. Local number 15N-1E-27DD2.

LOCATION.--Lat 41°14'20", long 97°17'30", SE1/4SE1/4 sec.27, T.15 N., R.1 E., Hydrologic Unit 10270201, 2 mi (3.2 km) north of the northeast corner of Rising City. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 5 in (0.13 m), depth 210.0 ft (64.01 m), perforated 199 to 210 ft (60.7 to 64.0 m).

DATUM.--Altitude of land-surface datum is 1,618 ft (493 m). Measuring point: Top of platform, at land-surface datum.

REMARKS.--Replacement for 411420097173001, local number 15N-1E-27DD, period of record June 1958 to January 1977. Water levels in well affected by pumping from nearby wells during irrigation season.

PERIOD OF RECORD.--February 1977 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 104.40 ft (31.82 m) below land-surface datum, May 10, 1979; lowest, 174.50 ft (53.19 m) below land-surface datum, Aug. 3, 1977.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 9	110.26H	DEC 10	106.65	APR 10	104.91	JUN 6	112.09H	JUL 10	104.57	AUG 15	156.14
NOV 9	107.52H	DEC 15	106.43	APR 15	104.63	JUN 10	109.98	JUL 15	104.48	AUG 20	156.14
NOV 10	107.48	DEC 20	106.35	APR 20	104.63	JUN 15	107.43	JUL 20	104.49	AUG 25	155.65
NOV 15	107.47	JAN 4	106.34	APR 25	104.63	JUN 20	106.32	JUL 25	104.50	SEP 10	126.54
NOV 20	107.47	FEB 7	105.60H	APR 30	104.62	JUN 25	105.57	JUL 31	104.50	SEP 15	121.71
NOV 25	107.08	MAR 5	105.37H	MAY 2	104.54H	JUN 30	105.04	AUG 3	143.70H	SEP 20	117.86
NOV 30	106.74	APR 4	104.95H	MAY 5	104.56	JUL 2	104.78H	AUG 5	148.72	SEP 25	115.35
DEC 6	106.66	APR 5	104.95	MAY 10	104.40	JUL 5	104.79	AUG 10	157.55	SEP 30	113.75

WTR YEAR 1979 MAX 104.40 MAY 10, 1979 MIN 158.00 AUG 11, 1979

H TAPE MEASUREMENT

CHASE COUNTY

403220101384001. Local number 7N-38W-28CC.

LOCATION.--Lat 40°32'20", long 101°38'40", SW1/4SW1/4 sec.28, T.7 N., R.38 W., Hydrologic Unit 10250005, about 0.5 mi (0.8 km) north of Imperial. Owner: Roy Hunt.

AQUIFER.--Ogallala Formation of Pliocene age.

WELL CHARACTERISTICS.--Drilled unused observation water-table well, diameter 18 in (0.46 m), depth 143 ft (43.6 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 3,284.6 ft (1,001.1 m). Measuring point: Top of casing 0.30 ft (0.09 m) above land-surface datum.

REMARKS.--Recording gage was installed on this well from December 1948 to December 1963. Water levels in well are affected by irrigation pumpage in area.

PERIOD OF RECORD.--December 1944; December 1948 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 72.82 ft (22.20 m) below land-surface datum, June 29, 1964; lowest measured, 102.75 ft (31.32 m) below land-surface datum, Oct. 16, 1978.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 16	102.75	NOV 14	101.54								

CHASE COUNTY

403235101395501. Local number 7N-38W-29CBB.

LOCATION.--Lat 40°32'35", long 101°39'55", NW1/4NW1/4SW1/4 sec.29, T.7 N., R.38 W., Hydrologic Unit 10250005, 0.5 mi (0.8 km) north and 1 mi (1.6 km) west of Imperial on U.S. Highway 6, then 0.5 mi (0.8 km) north on gravel road. Owner: U.S. Geological Survey.

AQUIFER.--Ogallala Formation of Pliocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 5.50 in (0.14 m), depth 230 ft (70.1 m), perforated 190 to 230 ft (57.9 to 70.1 m).

DATUM.--Altitude of land-surface datum is 3,290.30 ft (1,002.88 m). Measuring point: Top of casing 0.50 ft (0.15 m) above land-surface datum.

REMARKS.--Water levels in well are affected by irrigation pumpage in area.

PERIOD OF RECORD.--June 1964 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 55.87 ft (17.03 m) below land-surface datum, July 4, 1964; lowest, 92.50 ft (28.21 m) below land-surface datum, Sept. 7, 1979.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
05	86.71	84.33	82.68	81.20	80.16	79.31	78.61	78.39	78.33	83.35	90.62	92.29
10	86.13	84.09	82.38	81.12	79.89	79.21	78.06	77.90	78.11	84.63	91.11	91.88
15	85.69	83.67	82.08	80.76	80.11	79.12	78.37	78.00	77.75	86.58	91.40	91.55
20	85.25	83.43	81.87	80.62	79.56	78.99	78.40	78.13	77.95	87.87	91.36	90.98
25	85.04	83.07	81.72	80.47	79.68	78.75	78.14	77.90	79.12	89.07	92.18	90.52
EOM	84.73	82.80	81.92	80.30	79.35	78.79	78.08	78.00	81.36	89.26	90.65	90.19

WTR YEAR 1979 MAX 77.54 JUN 19, 1979 MIN 92.50 SEP 7, 1979

CHERRY COUNTY

423205100321501. Local number 30N-28W-36AAA.

LOCATION.--Lat 42°32'05", long 100°32'15", NE1/4NE1/4NE1/4 sec.36, T.30 N., R.28 W., Hydrologic Unit 10150004, 8 mi (12.9 km) south of the intersection of U.S. Highway 83 and State Highway 483, south of Valentine. Owner: U.S. Geological Survey.

AQUIFER.--Sand deposits of Pleistocene age.

WELL CHARACTERISTICS.--Bored observation water-table well, diameter 1.25 in (0.03 m), depth 12 ft (3.7 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 2,897.26 ft (883.08 m). Measuring point: Top of casing 3.00 ft (0.91 m) above land-surface datum.

REMARKS.--Water levels affected by evapotranspiration.

PERIOD OF RECORD.--October 1961 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, +0.20 ft (+0.06 m) above land-surface datum, Jan. 11, 1936; lowest, 1.99 ft (0.61 m) below land-surface datum, Oct. 4, 1976.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30	0.97	AUG 23	0.90								

CHEYENNE COUNTY

410917102410001. Local number 14N-47W-26CB.

LOCATION.--Lat 41°09'17", long 102°41'00", NW1/4SW1/4 sec.26, T.14 N., R.47 W., Hydrologic Unit 10190016, 2 mi (3.2 km) west of Lodgepole. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 1 in (0.03 m), depth 29 ft (8.8 m), screened 27 to 29 ft (8.2 to 8.8 m).

DATUM.--Altitude of land-surface datum is 3,872.0 ft (1,180.4 m). Measuring point: Top of casing 1.20 ft (0.37 m) above land-surface datum.

REMARKS.--Water levels affected by pumping from nearby wells during irrigation season and by changes in stage of Lodgepole Creek. No well reading made in 1979 water year.

PERIOD OF RECORD.--May 1940 to November 1942; November 1944; June 1947; June 1950 to March 1978.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 18.32 ft (5.58 m) below land-surface datum, Mar. 28, 1951; lowest, 26.10 ft (7.96 m) below land-surface datum, Oct. 19, 1979.

CLAY COUNTY

402940098154001. Local number 6N-8W-17BB.

LOCATION.--Lat 40°29'40", long 98°15'40", NW1/4NW1/4 sec.17, T.6 N., R.8 W., Hydrologic Unit 10270206, 0.7 mi (1.1 km) south of Glenville. Owner: Willard W. Kissinger.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 18 in (0.46 m), depth 151 ft (46.0 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 1,846 ft (563 m). Measuring point: Hole in turbine base at land-surface datum.

REMARKS.--Water levels affected by pumping during irrigation season.

PERIOD OF RECORD.--October 1952; June 1954 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 95.53 ft (29.12 m) below land-surface datum, June 24, 1954; lowest, 108.30 ft (33.01 m) below land-surface datum, Oct. 20, 1978.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 20	108.30	OCT 27	108.02	MAR 28	105.20						

COLFAX COUNTY

412810097054501. Local number 17N-3E-4CC.

LOCATION.--Lat 41°28'10", long 97°05'45", SW1/4SW1/4 sec.4, T.17 N., R.3 E., Hydrologic Unit 10200201, 2 mi west (3.2 km) and 1 mi (1.6 km) north or intersection of U.S. Highway 30 and State Highway 15 in Schuyler. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Driven observation water-table well, diameter 1.25 in (0.03 m), depth 16 ft (4.9 m), screened 14 to 16 ft (4.3 to 4.9 m).

DATUM.--Altitude of land-surface datum is 1,370.58 ft (417.75 m). Measuring point: Top of casing 1.00 ft (0.30 m) above land-surface datum.

PERIOD OF RECORD.--September 1946 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.15 ft (1.26 m) below land-surface datum, Apr. 1, 1952; lowest, 10.37 ft (3.16 m) below land-surface datum, Oct. 28, 1976.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 1	9.35										

CUSTER COUNTY

413910099285001. Local number 19N-19W-2BB.

LOCATION.--Lat 41°39'10", long 99°28'50", NW1/4NW1/4 sec.2, T.19 N., R.19 W., Hydrologic Unit 10210003, 1 mi (1.6 km) north and 5.8 mi (9.3 km) west of Sargent. Owner: Ralph Slagel. Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 18 in (0.46 m), depth 69 ft (21.0 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 2,361.95 ft (719.92 m). Measuring point: Hole in turbine base at land-surface datum.

REMARKS.--No well reading made in 1979 water year.

PERIOD OF RECORD.--August 1949 to June 1978.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.80 ft (2.68 m) below land-surface datum, Oct. 8, 1964; lowest, 19.41 ft (5.92 m) below land-surface datum, Sept. 1, 1954.

DAWES COUNTY

424100103243501. Local number 31N-52W-3DC.

LOCATION.--Lat 42°41'00", long 103°24'35", SW1/4SE1/4 sec.3, T.31 N., R.52 W., Hydrologic Unit 10140201, behind house at 312 Annin Street in Crawford. Owner: T. P. Moody.

AQUIFER.--Sand and gravel deposits, undifferentiated, of Quaternary age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 8 in (0.20 m), depth 39 ft (11.9 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 3,685 ft (1,123 m). Measuring point: Edge of iron plate 1.07 ft (0.33 m) above land-surface datum.

PERIOD OF RECORD.--August 1934 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 15.87 ft (4.84 m) below land-surface datum, May 30, 1948; lowest, 22.28 ft (6.79 m) below land-surface datum, Oct. 31, 1956.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 25	19.71	JAN 22	19.53	MAR 20	19.12	JUN 20	18.97	AUG 20	20.00	SEP 20	20.28
DEC 20	19.60	FEB 20	19.36	APR 20	19.09	JUL 20	19.51				

DAWSON COUNTY

405250099445501. Local number 10N-21W-18DDD.

LOCATION.--Lat 40°52'50", long 99°44'55", SE1/4SE1/4SE1/4 sec.18, T.10 N., R.21 W., Hydrologic Unit 10200101, 3.5 mi (5.6 km) north of the intersection of Route 21 and U.S. Highway 30 in Lexington. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6 in (0.15 m), depth 120 ft (36.6 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 2,420.58 ft (737.79 m). Measuring point: Top of casing 0.50 ft (0.15 m) above land-surface datum.

REMARKS.--Water levels in well affected by pumpage from nearby irrigation wells and by seepage from irrigation canals.

PERIOD OF RECORD.--July 1964 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 9.74 ft (2.97 m) below land-surface datum, Oct. 24, 1965; lowest, 17.90 ft (5.46 m) below land-surface datum, Aug. 20, 1976.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
05	14.30	14.84	15.04	15.22	15.35	15.29	15.09	14.60	14.54	13.15	12.36	12.72
10	14.38	14.92	15.07	15.24	15.36	15.18	14.99	14.56	14.63	12.74	14.09	12.81
15	14.53	14.93	15.07	15.25	15.41	15.26	14.94	14.54	14.53	12.63	14.32	12.85
20	14.57	14.97	15.10	15.26	15.39	15.20	14.83	14.52	14.24	13.93	13.30	13.01
25	14.68	14.97	15.16	15.31	15.40	15.13	14.73	14.49	13.85	13.81	13.26	13.24
EOM	14.78	15.00	15.19	15.35	15.33	15.11	14.67	14.53	13.48	12.15	13.02	13.38

WTR YEAR 1979 MAX 11.87 AUG 2, 1979 MIN 15.45 FEB 21, 1979

DAWSON COUNTY

404850099503501. Local number 10N-22W-29AA.

LOCATION.--Lat 40°48'50", long 99°50'35", NE1/4NE1/4 sec.29, T.10 N., R.22 W., Hydrologic Unit 10200101, 2 mi (3.2 km) east of Dorr. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 1 in (0.03 m), depth 12 ft (3.7 m), screened 10 to 12 ft (3.0 to 3.7 m).

DATUM.--Altitude of land-surface datum is 2,435.14 ft (742.23 m). Measuring point: Top of casing 1.80 ft (0.55 m) above land-surface datum.

REMARKS.--Water levels in well affected by pumping from nearby wells during irrigation season.

PERIOD OF RECORD.--October 1931 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.1 ft (1.55 m) below land-surface datum, Oct. 13, 1965; lowest, 17.69 ft (5.39 m) below land-surface datum, Feb. 8, 1946.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 1	7.61										

DUNDY COUNTY

400155101521302. Local number 1N-40W-29BB2.

LOCATION.--Lat 40°01'55", long 101°52'13", NW1/4NW1/4 sec.29, T.1 N., R.40 W., Hydrologic Unit 10250002, 3.5 mi (5.6 km) east of Haigler on U.S. Highway 34 and 0.5 mi (0.8 km) north. Well is within 0.5 mi (0.8 km) of Republican River. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits, undifferentiated, of Quaternary age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6 in (0.15 m), depth 48.8 ft (14.87 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 3,205 ft (977 m). Measuring point: South side of casing 1.6 ft (0.49 m) above land-surface datum.

REMARKS.--Replacement for well 400155101521301, local number 1N-40W-29BB1 with period of record from May 1946 to June 1975. Water levels in well are affected by pumping from nearby irrigation wells, evapotranspiration, and changes in stage of Republican River.

PERIOD OF RECORD.--October 1974 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 16.45 ft (5.01 m) below land-surface datum, June 25, 1975; lowest, 20.97 ft (6.39 m) below land-surface datum, Sept. 12, 1976.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
05	.....	18.92	18.40	18.05	17.71	17.43	17.22	17.06	17.80	17.69	18.49	19.29
10	19.23	18.82	18.33	17.99	17.65	17.40	17.18	17.19	17.97	17.67	18.76	19.54
15	19.39	18.72	18.25	17.93	17.62	17.37	17.16	17.50	17.72	18.10	18.68	19.72
20	19.65	18.63	18.18	17.87	17.52	17.34	17.16	17.73	17.66	17.96	18.91	19.55
25	19.26	18.53	18.13	17.82	17.49	17.30	17.12	17.56	17.90	17.94	19.07	19.42
EOM	19.07	18.47	18.07	17.76	17.46	17.26	17.09	17.75	17.66	18.08	18.96	19.55

WTR YEAR 1979 MAX 17.06 MAY 6, 1979 MIN 19.76 SEP 16, 1979

FILLMORE COUNTY

402504097432201. Local number 5N-4W-12BDC.

LOCATION.--Lat 40°25'04", long 97°43'22", SW1/4SE1/4NW1//4 sec.12, T.5 N., R.4 W., Hydrologic Unit 10270206, one-half block south of fire station on principal north-south street in Shickley. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 5 in (0.13 m), depth 260.0 ft (79.25 m), perforated 100 to 260 ft (30.5 to 79.25 m).

DATUM.--Altitude of land-surface datum is 1651 ft (503 m). Measuring point: Top of casing 1.5 ft (0.46 m) above land-surface datum.

REMARKS.--Replacement for 40245009743401, local number 5N-4W-12BC, period of record October 1956 to September 1977. Water levels in well affected by pumping from nearby municipal and irrigation wells.

PERIOD OF RECORD.--June 1977 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 90.92 ft (27.71 m) below land-surface datum, Apr. 17, 1978; lowest, 95.60 ft (29.14 m) below land-surface datum, Sept. 18, 1979.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
05	94.78	94.47	94.20	93.60	93.60	93.07	92.60	92.40	92.36	92.31	94.59	95.37
10	.....	94.50	94.00	93.66	93.20	93.06	.....	92.46	92.39	92.95	95.15	95.42
15	94.51	94.32	93.79	93.56	93.52	93.08	92.68	92.63	92.35	93.65	95.16	95.46
20	94.48	94.27	93.87	93.40	93.08	92.97	92.70	92.42	92.39	93.55	95.12	95.55
25	94.61	94.09	93.87	93.36	93.17	92.77	92.60	.....	92.31	93.70	95.16	95.52
EOM	94.56	94.04	93.71	93.35	93.05	92.94	92.56	92.43	92.15	94.19	95.17	95.45

WTR YEAR 1979 MAX 91.90 JULY 1, 1979 MIN 95.60 SEP 18, 1979

FILLMORE COUNTY

403800097300701. Local number 8N-2W-26AD.

LOCATION.--Lat 40°38'00", long 97°30'07", SE1/4NE1/4 sec.26, T.8 N., R.2 W., Hydrologic Unit 10270203, 2.5 mi (4.0 km) west on Route 6 from the principal street of Exeter, then 0.4 mi (0.6 km) south. Owner: U.S. Geological Survey.

AQUIFER.--Loess of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 8 in (0.20 m), depth 40 ft (12.2 m), perforated 25 to 40 ft (7.6 to 12.2 m).

DATUM.--Altitude of land-surface datum is 1,610 ft (491 m). Measuring point: Top of casing at land-surface datum.

REMARKS.--Perched aquifer, water levels affected by infiltration and deep percolation of applied irrigation water pumped from deeper aquifer.

PERIOD OF RECORD.--October 1956 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 5.43 ft (1.65 m) below land-surface datum, May 2, 1979; lowest, 24.16 ft (7.36 m) below land-surface datum, July 10, 1958.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
05	10.07M	10.46	10.73	11.14	11.45	9.62	8.04	5.92	7.57	6.11	7.42	8.63
10	10.09	10.55	10.81	11.20	11.43	8.20	8.07	6.49	7.80	6.25	7.90	8.78
15	10.27	10.60	10.74	11.14	11.71	8.90	7.96	6.75	7.80	6.63	8.13	8.96
20	10.25	10.71	10.82	11.12	11.50	7.87	8.18	6.99	8.06	6.77	8.21	9.16
25	10.31	10.63	10.95	11.22	11.62	6.52	8.20	7.19	8.03	6.65	8.36	9.40
EOM	10.47	10.62	11.05	11.39	10.67	7.60	8.18	7.48	7.57	7.10	8.42	9.55

WTR YEAR 1979 MAX 5.43 MAY 2, 1979 MIN 11.71 FEB 15, 1979

M TAPE MEASUREMENT

FURNAS COUNTY

401718099491001. Local number 4N-22W-29AD.

LOCATION.--Lat 40°17'18", long 99°49'10", SE1/4NE1/4 sec.29, T.4 N., R.22 W., Hydrologic Unit 10250009, 2 mi (3.2 km) west and 0.5 mi (0.8 km) north of Edison. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 1.25 in (0.03 m), depth 23 ft (7.0 m), screened 21 to 23 ft (6.4 to 7.0 m).

DATUM.--Altitude of land-surface datum is 2,134 ft (650 m). Measuring point: Top of casing 1.00 ft (0.30 m) above land-surface datum.

PERIOD OF RECORD.--February 1946 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.60 ft (1.40 m) below land surface datum, Aug. 22, 1976; lowest, 17.69 ft (5.39 m) below land-surface datum, Feb. 8, 1946.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 16	8.80G	DEC [illegible]1	9.30G								

G MEASUREMENT MADE BY ANOTHER AGENCY

GARDEN COUNTY

414413102244501. Local number 20N-44W-5DB.

LOCATION.--Lat 41°44'13", long 102°24'45", NW1/4SE1/4 sec.5, T.20 N., R.44 W., Hydrologic Unit 10180009, 2.6 mi (4.2 km) southeast of Mumper. Owner: Crescent Lake Migratory Bird Refuge.

AQUIFER.--Sand deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 1.50 in (0.04 m), depth 20 ft (6.1 m), screened 18 to 20 ft (5.5 to 6.1 m).

DATUM.--Altitude of land-surface datum is 3,798.19 ft (1,157.69 m). Measuring point: Top of casing 2.50 ft (0.76 m) above land-surface datum.

PERIOD OF RECORD.--August 1934 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.54 ft (1.38 m) below land-surface datum, Oct. 14, 1934; lowest, 8.70 ft (2.65 m) below land-surface datum, Apr. 11, 1941.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 29	7.50	JAN 4	7.64	MAR 27	7.39G	JUL 2	6.97G	SEP 22	7.25G		

G MEASUREMENT MADE BY ANOTHER AGENCY

GARFIELD COUNTY

414718099083201. Local number 21N-16W-14CB.

LOCATION.--Lat 41°47'18", long 99°08'32", NW1/4SW1/4 sec.14, T.21 N., R.16 W., Hydrologic Unit 10210007, 5 mi (8.0 km) east and 1 mi (1.6 km) north of Burwell. Owner: Frank Smolik.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 18 in (0.46 m), depth 154 ft (46.9 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 2,174 ft (663 m). Measuring point: Hole in turbine base 2.00 ft (0.61 m) above land-surface datum.

REMARKS.--Water levels affected by pumping during irrigation season.

PERIOD OF RECORD.--October 1950 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 21.62 ft (6.59 m) below land-surface datum, Oct. 16, 1973; lowest, 24.92 ft (7.60 m) below land-surface datum, Oct. 28, 1959.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26	23.97										

GOSPER COUNTY

403626099451401. Local number 7N-21W-6BC.

LOCATION.--Lat 40°36'26", long 99°45'14", SW1/4NW1/4 sec.2, T.7 N., R.21 W., Hydrologic Unit 10200101, 1 mi (1.6 km) west and 2 mi (3.2 km) north of Smithfield. Owner: Andy Larson Estate.

AQUIFER.--Ogallala Formation of Pliocene age.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 4 in (0.10 m), depth 132 ft (40.2 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 2,466.95 ft (751.93 m). Measuring point: Top of casing 0.40 ft (0.12 m) above land-surface datum.

REMARKS.--Water levels in well affected by pumping from nearby irrigation wells and by infiltration and deep percolation from nearby irrigation canal.

PERIOD OF RECORD.--September 1934 to July 1940, January 1948 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 56.70 ft (17.28 m) below land-surface datum, Oct. 17, 1975; lowest, 117.80 ft (35.91 m) below land-surface datum, Sept. 26, 1935.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 13	58.30										

HALL COUNTY

405315098304302. Local number 11N-11W-25CC2.

LOCATION.--Lat 40°53'15", long 98°30'43", SW1/4SW1/4 sec.25, T.11 N., R.11 W., Hydrologic Unit 10200103, 1.0 mi (1.6 km) north and 2.0 mi (3.2 km) west of Alda. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6 in (0.15 m), depth 65 ft (19.8 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 1,924.0 ft (586.4 m). Measuring point: Top of casing 2.00 ft (0.61 m) above land-surface datum.

REMARKS.--Replacement for 405315098304301, local number 11N-11W-25CC, period of record October 1946 to November 1977. Water levels in wells affected by pumping from nearby wells during irrigation season.

PERIOD OF RECORD.-- April 1977 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 21.66 ft (6.60 m) below land-surface datum, June 25, 1978; lowest, 24.25 ft (7.39 m) below land-surface datum, Sept. 15, 1978.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
05	24.18	24.03	23.93	.....	23.78	23.71	23.02	22.91	22.50	22.23	22.86	23.69
10	24.14	24.01	23.93	23.83	23.77	23.55	23.01	22.85	22.46	22.21	23.01	23.80
15	24.14	24.00	23.91	23.81	23.78	23.30	22.98	22.80	22.37	22.22	23.15	23.85
20	24.11	23.98	23.89	23.81	.....	23.22	22.97	22.74	22.31	22.29	23.28	23.88
25	24.08	23.98	23.86	23.80	23.73	23.16	22.94	22.66	22.30	22.45	23.44	23.85
EOM	24.06	23.95	23.85	23.80	23.74	23.04	22.93	22.57	22.28	22.70	23.61	23.79

WTR YEAR 1979 MAX 22.18 JUL 16, 1979 MIN 24.21 OCT 1, 1978

HAMILTON COUNTY

404825097583301. Local number 10N-6W-26BC.

LOCATION.--Lat 40°48'25", long 97°58'33", SW1/4NW1/4 sec.26, T.10 N., R.6 W., Hydrologic Unit 10270203, 4 mi (6.4 km) south of junction of Route 14 and U.S. Highway 34 in Aurora, then 1.0 mi (1.6 km) east and 0.3 mi (0.48 km) south. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 8 in (0.20 m), depth 131 ft (39.9 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 1,790.5 ft (545.7 m). Measuring point: Top of casing 1.50 ft (0.46 m) above land-surface datum.

REMARKS.--Water levels affected by pumping at nearby irrigation wells.

PERIOD OF RECORD.--March 1956 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 84.90 ft (25.88 m) below land-surface datum, June 20, 1956; lowest, 106.97 ft (32.60 m) below land-surface datum, Sept. 8, 1976.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
05	......	104.77	103.95	103.40	102.79	......	101.81	101.47	101.17	100.80	102.96	104.87
10	105.66	104.55	103.87	103.25	102.67	102.31	101.76	101.38	101.12	100.80	103.80	104.84
15	105.44	104.43	103.72	103.15	102.58	102.23	101.70	101.35	101.07	100.74	104.50	104.76
20	105.23	104.36	103.63	103.02	102.53	102.12	101.65	101.30	101.00	100.79	104.62	104.51
25	104.97	104.20	103.53	102.96	102.42	101.87	101.60	101.27	100.96	101.16	104.76	104.42
EOM	104.83	104.09	103.44	102.87	102.39	101.85	101.55	101.22	100.87	102.16	104.85	104.27

WTR YEAR 1979 MAX 106.08 OCT 1, 1978 MIN 100.74 JUL 15, 1979

HAMILTON COUNTY

405514097573901. Local number 11N-6W-13CB.

LOCATION.--Lat 40°55'14", long 97°57'39", NW1/4SW1/4 sec.13, T.11 N., R.6 W., Hydrologic Unit 10270201, 2 mi (3.2 km) east and 3.5 mi (5.6 km) north of Aurora. Owner: O. S. Swedberg.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 24 in (0.61 m), depth 194 ft (59.1 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 1,812.2 ft (552.4 m). Measuring point: Hole in south side turbine base at land-surface datum.

REMARKS.--Water levels affected by pumping during irrigation season.

PERIOD OF RECORD.--September 1934 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 90.04 ft (27.44 m) below land-surface datum, Sept. 29, 1934; lowest, 117.18 ft (35.72 m) below land-surface datum, Nov. 15, 1976.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 6	109.80	MAY 11	106.90								

HARLAN COUNTY

400920099215501. Local number 2N-18W-9BCC.

LOCATION.--Lat 40°09'20", long 99°21'55", SW1/4SW1/4NW1/4 sec.9, T.2 N., R.18 W., Hydrologic Unit 10250009, 3.5 mi (5.6 km) north of the junction of Route 3 and U.S. Highway 183 in Alma. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 5.50 in (0.14 m), depth 170 ft (51.8 m), perforated from 140 to 170 ft (42.7 to 51.8 m).

DATUM.--Altitude of land-surface datum is 2,120 ft (646 m). Measuring point: Top of casing 0.50 ft (0.15 m) above land-surface datum.

REMARKS.--Water levels affected by pumping from nearby wells during irrigation season.

PERIOD OF RECORD.--June 1964 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 84.39 ft (25.72 m) below land-surface datum, May 11, 1966; lowest, 109.96 ft (33.52 m) below land-surface datum, Sept. 15, 1974.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
05	92.82	92.25	91.22	91.04	90.76	90.54	90.43	89.96	89.96	90.41	.....	92.23
10	92.66	91.94	91.10	90.99	90.63	90.56	90.05	90.02	90.06	95.66	.....	92.02
15	92.56	91.55	90.96	90.84	90.82	90.54	90.17	89.98	92.14	96.76	.....	91.92
20	92.41	91.45	90.99	90.79	90.52	90.44	90.14	89.96	90.82	.....	96.26	91.98
25	92.40	91.32	90.99	90.77	90.66	90.31	90.07	90.61	90.30	.....	93.85	.....
EOM	92.78	91.22	90.93	90.77	90.52	90.36	90.05	91.06	90.30	.....	92.37	.....

WTR YEAR 1979 MAX 89.78 MAY 6, 1979 MIN 96.76 JULY 15, 1979

HARLAN COUNTY

400620099274001. Local number 2N-19W-28DD.

LOCATION.--Lat 40°06'20", long 99°27'40", SE1/4SE1/4 sec.28, T.2 N., R.19 W., Hydrologic Unit 10250009, 1.8 mi (2.9 km) south of Orleans. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 1 in (0.03 m), depth 22 ft (6.7 m), screened 20 to 22 ft (6.1 to 6.7 m).

DATUM.--Altitude of land-surface datum is 1,960 ft (597 m). Measuring point: Top of casing 1.20 ft (0.37 m) above land-surface datum.

PERIOD OF RECORD.--May 1940 to October 1941; March 1946 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.9 ft (1.80 m) below land-surface datum, Feb. 15, 1966; lowest, 12.14 ft (3.70 m) below land-surface datum, Sept. 13, 1955.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
MAR 5	9.20G	AUG 1	9.60G								

G MEASUREMENT MADE BY ANOTHER AGENCY

HITCHCOCK COUNTY

401458100542201. Local number 3N-32W-11BB.

LOCATION.--Lat 40°14'58", long 100°54'22", NW1/4NW1/4 sec.11, T.3 N., R.32 W., Hydrologic Unit 10250005, 3 mi (4.8 km) west and 1 mi (1.6 km) north of Culbertson. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits, undifferentiated, of Quaternary age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 1.25 in (0.03 m), depth 18 ft (5.5 m), screened 16 to 18 ft (4.9 to 5.5 m).

DATUM.--Altitude of land-surface datum is 2,615 ft (797 m). Measuring point: Top of casing 1.00 ft (0.30 m) above land-surface datum.

REMARKS.--Water levels in well affected by pumping of nearby irrigation wells and seepage from irrigation canals.

PERIOD OF RECORD.--May 1946 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 12.65 ft (3.86 m) below land-surface datum, Feb. 8, 1949; lowest, 17.30 ft (5.27 m) below land-surface datum, Aug. 10, 1978.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 16	16.80G	MAR 12	16.00G	JUN 11	16.70G	AUG 2	16.90G				

G MEASUREMENT MADE BY ANOTHER AGENCY

HOLT COUNTY

421605098203001. Local number 27N-9W-34DA.

LOCATION.--Lat 42°16'05", long 98°20'30", NE1/4SE1/4 sec.34, T.27 N., R.9 W., Hydrologic Unit 10220001, 0.5 mi (0.8 km) north of Ewing. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 1 in (0.03 m), depth 17 ft (5.2 m), screened 15 to 17 ft (4.6 to 5.2 m).

DATUM.--Altitude of land-surface datum is 1,841 ft (561 m). Measuring point: Top of casing 1.10 ft (0.34 m) above land-surface datum.

PERIOD OF RECORD.--December 1934 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.67 ft (0.81 m) below land-surface datum, Apr. 5, 1960; lowest, 9.90 ft (3.02 m) below land-surface datum, Sept. 1, 1948.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 5	8.13	DEC 7	7.49	FEB 8	6.56	MAR 22	5.69	MAY 3	6.76	JUN 14	7.25
OCT 23	8.00	DEC 28	7.24	FEB 26	6.33	APR 11	6.34	MAY 21	6.88	JUL 11	7.48
NOV 16	7.86	JAN 22	6.79								

HOLT COUNTY

422845098370701. Local number 29N-11W-21BBB.

LOCATION.--Lat 42°28'45", long 98°37'07", NW1/4NW1/4NW1/4 sec.21, T.29 N., R.11 W., Hydrologic Unit 10150007, 1 mi (1.6 km) east and 1 mi (1.6 km) north of O'Neill. Owner: Murphy.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled stock water-table well, diameter 5 in (0.13 m), depth 55 ft (16.8 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 2,001.06 ft (609.92 m). Measuring point: Top of casing 1.20 ft (0.37 m) above land-surface datum.

REMARKS.--Water levels in well affected by pumping of nearby wells during irrigation season.

PERIOD OF RECORD.--November 1947 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 16.87 ft (5.14 m) below land-surface datum, Jan. 14, 1948; lowest, 34.64 ft (10.56 m) below land-surface datum, Oct. 14, 1977.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 2	30.20	MAY 2	27.17								

HOLT COUNTY

423148098300601. Local number 30N-10W-32DAA.

LOCATION.--Lat 42°31'48", long 98°30'06", NE1/4NE1/4SE1/4 sec.32, T.30 N., R.10 W., Hydrologic Unit 10150007, 2 mi (3.2 km) east on paved road from O'Neill, then 2 mi (3.2 km) north, 4 mi (6.4 km) east, 2 mi (3.2 km) north, 2 mi (3.2 km) east, and 0.5 mi (0.8 km) north. Owner: William J. Murphy.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 8 in (0.20 m), depth 85 ft (25.9 m), perforated 25.5 to 85 ft (7.8 to 25.9 m).

DATUM.--Altitude of land-surface datum is 1,952 ft (595 m). Measuring point: Top of casing 1.00 ft (0.30 m) above land-surface datum.

REMARKS.--Water levels in this well affected by withdrawals by nearby irrigation wells completed in this aquifer and withdrawals from a deeper aquifer which has resulted in water movement from the upper aquifer to the deeper aquifer.

PERIOD OF RECORD.--October 1966 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 35.41 ft (10.79 m) below land-surface datum, Oct. 21, 1966; lowest, 50.67 ft (15.44 m) below land-surface datum, Oct. 9, 1978.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
05	50.66	50.66	50.50	50.35	50.22	50.16	50.05	49.94	49.82	49.79	50.13	50.30
10	50.67	50.62	50.47	50.33	50.22	50.14	50.02	49.91	49.80	49.87	50.15	50.36
15	50.67	50.61	50.45	50.29	50.21	50.13	50.00	49.89	49.79	49.99	50.19	50.41
20	50.66	50.59	50.42	50.27	50.19	50.11	50.02	49.85	49.78	50.08	50.21	50.44
25	50.67	50.56	50.39	50.27	50.19	50.09	50.00	49.84	49.77	50.11	50.23	50.46
EOM	50.66	50.54	50.37	50.25	50.18	50.07	49.97	49.82	49.77	50.13	50.26	50.48

WTR YEAR 1979 MAX 49.75 JUN 16, 1979 MIN 50.67 OCT 9, 1978

HOLT COUNTY

423730098560001. Local number 31N-14W-27DDD.

LOCATION.--Lat 42°37'30", long 98°56'00", SE1/4SE1/4SE1/4 sec.27, T.31 N., R.14 W., Hydrologic Unit 10150007, 6 mi (9.7 km) north from Atkinson on Route 11, then 2 mi (3.2 km) east. Owner: Elmer Goldfuss.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 8 in (0.20 m), depth 72 ft (21.9 m), perforated 32 to 72 ft (9.8 to 21.9 m).

DATUM.--Altitude of land-surface datum is 2,080 ft (634 m). Measuring point: Top of casing at land-surface datum.

REMARKS.--Water levels in well affected by pumping of nearby wells during irrigation season.

PERIOD OF RECORD.--July 1966 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 30.91 ft (9.42 m) below land-surface datum, July 7, 1966; lowest, 43.30 ft (13.20 m) below land-surface datum, Sept. 10, 1976.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
05	38.94	38.54	38.25	38.05	37.85	37.72	37.47	37.26	37.19	37.00	36.98	37.75
10	38.86	38.49	38.19	38.04	37.61	37.72	37.39	37.27	37.16	36.93	37.32	37.79
15	38.77	38.44	38.14	37.98	37.85	37.70	37.41	37.24	37.11	37.20	37.56	37.76
20	38.70	38.41	38.10	37.93	37.74	37.61	37.36	37.20	37.11	37.23	37.64	37.66
25	.....	38.34	38.09	37.90	37.80	37.54	37.31	37.19	37.08	37.23	37.54	37.60
EOM	.....	38.22	38.11	37.88	37.72	37.52	37.29	37.27	37.05	37.06	37.55	37.48

WTR YEAR 1979 MAX 36.93 JUL 10, 1979 MIN 39.04 OCT 1, 1978

KEARNEY COUNTY

403053098581501. Local number 6N-15W-1CB.

LOCATION.--Lat 40°30'53", long 98°58'15", NW1/4SW1/4 sec.1, T.6 N., R.15 W., Hydrologic Unit 10270206, 1 mi (1.6 km) west and 1 mi (1.6 km) north of intersection of U.S. Highway 6 and State Highway 10 in Minden. Owner: Roy Youngson.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 18 in (0.46 m), depth 176 ft (53.6 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 2,171.80 ft (661.96 m). Measuring point: Hole in turbine base 1.00 ft (0.30 m) above land-surface datum.

PERIOD OF RECORD.--June 1948 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 45.50 ft (13.87 m) below land-surface datum, Oct. 21, 1975; lowest, 71.36 ft (21.75 m) below land-surface datum, June 29, 1948.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26	48.84										

KEARNEY COUNTY

402625098594501. Local number 6N-15W-34DC.

LOCATION.--Lat 40°26'25", long 98°59'45", SW1/4SE1/4 sec.34, T.6 N., R.15 W., Hydrologic Unit 10270206, 4.5 mi (7.2 km) south and 2.5 mi (4.0 km) west of the junction of Route 10 and U.S. Highway 34 near Minden. Owner: Conservation and Survey Division, University of Nebraska-Lincoln.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6 in (0.15 m), depth 210 ft (64.0 m), cased with steel, perforated 190 to 210 ft (57.9 to 64.0 m).

DATUM.--Altitude of land-surface datum is 2,210 ft (674 m). Measuring point: Top of casing 1.00 ft (0.30 m) above land-surface datum.

REMARKS.--replacement for 402615099000001, local 5N-15W-3BA1, period of record August 1947 to September 1967. Water levels in well affected by seepage losses from nearby canals and by pumping of nearby wells during irrigation season.

PERIOD OF RECORD.--October 1968 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 79.29 ft (24.17 m) below land-surface datum, May 29, 1976; lowest, 117.82 ft (35.91 m) below land-surface datum, July 28, 1978.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
05	87.31	85.83	84.94	85.71	.....	.....	84.05	82.51	82.25	81.84	107.00	108.98
10	86.89	85.72	84.96	85.51	.....	.....	82.64	82.51	82.30	82.94	115.82	94.29
15	86.82	85.73	84.62	.....	84.98	84.54	82.93	82.52	81.89	108.60	93.87	86.71
20	86.59	85.68	84.59	.....	.....	84.30	82.86	82.38	82.01	83.27	88.55	85.73
25	86.14	85.23	84.69	.....	.....	83.99	82.56	82.47	81.97	103.75	91.54	85.44
EOM	86.29	85.03	84.80	.....	.....	84.18	82.64	82.61	81.76	106.74	85.30	84.83

WTR YEAR 1979 MAX 81.52 JUL 1, 1979 MIN 115.82 AUG 10, 1979

KIMBALL COUNTY

411416103361101. Local number 15N-55W-26CC.

LOCATION.--Lat 41°14'16", long 103°36'11", SW1/4SW1/4 sec.26, T.15 N., R.55 W., Hydrologic Unit 10190016, east of intersection of U.S. Highway 30 and State Highway 71 in Kimball. Owner: Henry Meier.

AQUIFER.--Ogallala Formation of Pliocene age.

WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 24 in (0.61 m), depth 124 ft (37.8 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 4,652.3 ft (1,418.0 m). Measuring point: Top of casing 0.00 ft (0.00 m) above land-surface datum.

REMARKS.--Replacement for 411600103393501, local number 15N-55W-17CC1, period of record January 1935 to November 1942; June 1950 to October 1975.

PERIOD OF RECORD.--January 1936 to October 1937; January 1951 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 39.82 ft (12.14 m) below land-surface datum, Jan. 2, 1936; ~~lowest~~, 54.07 ft (16.48 m) below land-surface datum, Oct. 18, 1977.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 20	52.24										

LANCASTER COUNTY

403643096433001. Local number 8N-6E-34DD.

LOCATION.--Lat 40°36'43", long 96°43'30", SE1/4SE1/4 sec.34, T.8 N., R.6 E., Hydrologic Unit 10200203, 1 mi (1.6 km) east and 1 mi (1.6 km) south of Sprague. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits, undifferentiated, of Quaternary age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 8 in (0.20 m), depth 53 ft (16.2 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 1,285 ft (392 m). Measuring point: Top of casing 1.00 ft (0.30 m) above land-surface datum.

PERIOD OF RECORD.--June 1954 to October 1977.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.41 ft (1.04 m) below land-surface datum, Apr. 5, 1960; lowest, 8.90 ft (2.71 m) below land-surface datum, July 31, 1954.

REMARKS.--Well destroyed prior to Oct. 18, 1978. No measurements in 1979 water year.

LANCASTER COUNTY

403929096401001. Local number 8N-7E-18DDB.

LOCATION.--Lat 40°39'29", long 96°40'10", NW1/4SE1/4SE1/4 sec.18, T.8 N., R.7 E., Hydrologic Unit 10200203, 0.6 mi (0.97 km) west of Roca. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits, undifferentiated, of Quaternary age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 8 in (0.20 m), depth 41 ft (12.5 m), perforated 36 to 41 ft (11.0 to 12.5 m).

DATUM.--Altitude of land-surface datum is 1,215 ft (370 m). Measuring point: Top of casing 2.00 ft (0.61 m) above land-surface datum.

PERIOD OF RECORD.--June 1954 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.63 ft (0.50 m) below land-surface datum, Aug. 25, 1954; lowest, 12.55 ft (3.83 m) below land-surface datum, June 20, 1956.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 18	9.83										

LANCASTER COUNTY

403833096385501. Local number 8N-7E-20DDA.

LOCATION.--Lat 40°38'33", long 96°38'55", NE1/4SE1/4SE1/4 sec.20, T.8 N., R.7 E., Hydrologic Unit 10200203, 0.5 mi (0.8 km) east and 1.1 mi (1.8 km) south of Roca. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits, undifferentiated, of Quaternary age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 8 in (0.20 m), depth 33 ft (10.1 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 1,243 ft (379 m). Measuring point: Top of casing 1.00 ft (0.30 m) above land-surface datum.

PERIOD OF RECORD.--June 1954 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.16 ft (0.05 m) below land-surface datum, Mar. 27, 1960; lowest, 11.55 ft (3.52 m) below land-surface datum, Mar. 20, 1957.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 18	3.20										

LANCASTER COUNTY

404730096440401. Local number 10N-6E-34CA.

LOCATION.--Lat 40°47'30", long 96°44'04", NE1/4SW1/4 sec.34, T.10 N., R.6 E., Hydrologic Unit 10200203, 0.3 mi (0.5 km) west of intersection of Folsom and South Streets in Lincoln. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 8 in (0.20 m), depth 36 ft (11.0 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 1,149 ft (350 m). Measuring point: Top of casing 2.00 ft (0.61 m) above land-surface datum.

PERIOD OF RECORD.--December 1951 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.20 ft (2.80 m) below land-surface datum, Oct. 15, 1973; lowest, 18.53 ft (5.65 m) below land-surface datum, Feb. 20, 1957.

REMARKS.--No well reading made in 1979 water year.

LANCASTER COUNTY

404706096413001. Local number 10N-6E-36CDD.

LOCATION.--Lat 40°47'06", long 96°41'30", SE1/4SE1/4SW1/4 sec.36, T.10 N., R.6 E., Hydrologic Unit 10200203, in Irvingdale Park on the north side of Van Dorn Street between 19th and 20th Streets in Lincoln. Owner: City of Lincoln.

AQUIFER.--Dakota Formation of Lower Cretaceous age.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 16 in (0.41 m), depth 170 ft (51.8 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 1,200 ft (366 m). Measuring point: Top of casing 1.00 ft (0.30 m) above land-surface datum.

REMARKS.--Water levels in well have had a rising trend for the period of record due partly to recovery from long-term withdrawals from the aquifer for the Lincoln water supply prior to 1950 and partly to recharge from precipitation.

PERIOD OF RECORD.--August 1951 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 51.13 ft (15.58 m) below land-surface datum, Sept. 28, 1979; lowest 71.19 ft (21.70 m) below land-surface datum, Sept. 5, 1956.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
05	52.65	52.55	52.48	52.50	52.32	52.13	52.27	51.82	51.63	51.77	51.51	51.35
10	52.47	52.58	52.41	52.48	52.13	52.25	51.81	51.98	51.89	51.55	51.56	51.33
15	52.60	52.55	52.20	52.24	52.50	52.35	52.12	52.02	51.60	51.68	51.63	51.46
20	52.38	52.67	52.25	52.02	51.95	52.16	52.12	51.79	51.70	51.56	51.38	.....
25	52.57	52.37	52.35	52.10	52.33	51.97	51.92	51.78	51.79	51.55	51.41	.....
EOM	52.69	52.34	52.42	52.29	52.03	52.20	52.00	51.83	51.61	51.60	51.36	.....

WTR YEAR 1979 MAX 51.13 SEP 28, 1979 MIN 52.77 OCT 23, 1978

MERRICK COUNTY

410143098090301. Local number 12N-7W-7AA. Lat 41°01'43", long 98°09'03", NE1/4NE1/4 sec.7, T.12 N., R.7 W., Hydrologic Unit 10200103, 0.5 mi (0.8 km) north and 0.5 mi (0.8 km) west of Chapman. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 1.25 in (0.03 m), depth 13 ft (4.0 m), screened 11 to 13 ft (3.4 to 4.0 m).

DATUM.--Altitude of land-surface datum is 1,762.16 ft (537.11 m). Measuring point: Top of casing 1.00 ft (0.30 m) above land-surface datum.

REMARKS.--Water levels in well affected by pumping of nearby wells during irrigation season and by evapotranspiration.

PERIOD OF RECORD.--December 1945 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.84 ft (1.17 m) below land-surface datum, Feb. 14, 1974; lowest, 10.75 ft (3.28 m) below land-surface datum, Dec. 3, 1976.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	9.09	MAY 10	6.09								

MERRICK COUNTY

405755098111301. Local number 12N-8W-36BC.

LOCATION.--Lat 40°57'55", long 98°11'13", SW1/4NW1/4 sec.36, T.12 N., R.8 W., Hydrologic Unit 10200103, 2 mi (3.2 km) southwest of the intersection of the main street in Chapman and U.S. Highway 30, then 2.6 mi (4.2 km) south. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Jetted observation water-table well, diameter 6 in (0.15 m), depth 7.75 ft (2.36 m), perforated 5 to 8 ft (1.5 to 2.4 m).

DATUM.--Altitude of land-surface datum is 1,785.38 ft (544.18 m). Measuring point: Top of casing 1.00 ft (0.30 m) above land-surface datum.

REMARKS.--Water levels in well affected by evapotranspiration.

PERIOD OF RECORD.--July 1958 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 1.02 ft (0.31 m) below land-surface datum, June 13, 1967; lowest, 6.21 ft (1.89 m) below land-surface datum, Aug. 31, 1976.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
05	5.64	5.19	4.72	4.74	4.26	3.81	3.24	3.15	4.64	4.06	5.18	5.33
10	5.57	.....	4.67	4.66	4.20	3.63	3.41	2.40	4.19	3.92	5.34	5.12
15	5.47	.....	4.58	.....	4.08	2.72	3.31	3.18	4.67	4.26	5.23	5.12
20	5.40	5.00	4.54	4.44	4.08	2.96	2.83	3.61	4.88	4.42	5.37	5.27
25	5.30	4.93	4.55	4.32	4.03	2.72	3.32	4.05	4.87	4.79	5.38	5.36
EOM	5.26	4.79	4.63	4.28	4.35	3.18	3.42	4.27	4.57	4.82	5.33	5.38

WTR YEAR 1979 MAX 2.27 MAY 10, 1979 MIN 5.67 OCT 1, 1978

MORRILL COUNTY

414107103054501. Local number 20N-50W-28BB.

LOCATION.--Lat 41°41'07", long 103°05'45", NW1/4NW1/4 sec.28, T.20 N., R.50 W., Hydrologic Unit 10180009, 0.1 mi (0.2 km) west of Northport. Owner: Fred Smith.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 1.25 in (0.03 m), depth 35 ft (10.7 m), screened 33 to 35 ft (10.1 to 10.7 m).

DATUM.--Altitude of land-surface datum is 3,675 ft (1,120 m). Measuring point: Top of casing 2.80 ft (0.85 m) above land-surface datum.

PERIOD OF RECORD.--September 1934 to November 1942; November 1944 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.87 ft (3.62 m) below land-surface datum, Sept. 7, 1951; lowest, 17.33 ft (5.28 m) below land-surface datum, Oct. 26, 1954.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 18	13.70										

NUCKOLLS COUNTY

400240098111301. Local number 1N-8W-23AB.

LOCATION.--Lat 40°02'40", long 98°11'13", NW1/4NE1/4 sec.23, T.1 N., R.8 W., Hydrologic Unit 10250016, 0.5 mi (0.8 km) south and 0.5 mi (0.8 km) west of Bostwick. Owner: U.S. Geological Survey.

AQUIFER.--Loess of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 8 in (0.20 m), depth 18 ft (5.5 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 1,598.15 ft (487.12 m). Measuring point: Top of casing 1.50 ft (0.46 m) above land-surface datum.

PERIOD OF RECORD.--April 1950 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.02 ft (0.01 m) below land-surface datum, July 29, 1951; lowest, 7.85 ft (2.39 m) below land-surface datum, Apr. 30, 1950.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 10	5.60	MAY 7	4.70								

PHELPS COUNTY

403123099261501. Local number 6N-19W-2AA.

LOCATION.--Lat 40°31'23", long 99°26'15", NE1/4NE1/4 sec.2, T.6 N., R.19 W., Hydrologic Unit 10200101, 10 mi (16.1 km) east of Bertrand. Owner: Central Nebraska Public Power and Irrigation District.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 1 in (0.03 m), depth 151 ft (46.0 m), screened 149 to 151 ft (45.4 to 46.0 m).

DATUM.--Altitude of land-surface datum is 2,360.81 ft (719.57 m). Measuring point: Top of casing 1.00 ft (0.30 m) above land-surface datum.

REMARKS.--Water levels in well affected by seepage losses from nearby irrigation canal.

PERIOD OF RECORD.--March 1945 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 48.80 ft (14.87 m) below land-surface datum, Oct. 21, 1975; lowest, 123.70 ft (37.70 m) below land-surface datum, Mar. 9, 1945.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26	50.22	NOV 8	50.36								

PLATTE COUNTY

412955097192001. Local number 18N-1E-28CD.

LOCATION.--Lat 41°29'55", long 97°19'20", SE1/4SW1/4 sec.28, T.18 N., R.1 E., Hydrologic Unit 10200201, 3 mi (4.8 km) south and 8.5 mi (13.7 km) east of Platte Center. Owner: Loup River Public Power District.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 2 in (0.05 m), depth 99 ft (30.2 m), screened 97 to 99 ft (29.6 to 30.2 m).

DATUM.--Altitude of land-surface datum is 1,511.8 ft (460.8 m). Measuring point: Top of casing 0.50 ft (0.15 m) above land-surface datum.

PERIOD OF RECORD.--November 1935 to August 1940; March 1942 to November 1953; November 1956 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 60.30 ft (18.38 m) below land-surface datum, Mar. 27, 1940; lowest, 72.81 ft (22.19 m) below land-surface datum, Oct. 9, 1958.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 16	69.24										

RED WILLOW COUNTY

401015100353701. Local number 2N-29W-4AD.

LOCATION.--Lat 40°10'15", long 100°35'37", SE1/4NE1/4 sec.4, T.2 N., R.29 W., Hydrologic Unit 10250004, 2 mi (3.2 km) south and 1.5 mi (2.4 km) east of intersection of U.S. Highway 6 and 83 in east part of McCook. Owner: Rex S. Haberman.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 26 in (0.66 m), depth 40 ft (12.2 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 2,481 ft (756 m). Measuring point: Top of casing 3.00 ft (0.91 m) above land-surface datum.

PERIOD OF RECORD.--September 1950 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 24.6 ft (7.50 m) below land-surface datum, Oct. 9, 1965; lowest, 37.10 ft (11.31 m) below land-surface datum, July 11, 1953.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 17	30.90										

SALINE COUNTY

403855097072501. Local number 8N-3E-19ADA.

LOCATION.--Lat 40°38'55", long 97°07'25", NE1/4SE1/4NE1/4 sec.19, T.8 N., R.3 E., Hydrologic Unit 10270202, west edge of Dorchester, on west side of Route 15 between U.S. Highway and Route 33. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 5 in (0.13 m), depth 151 ft (46.0 m), perforated 142 to 151 ft (43.3 to 46.0 m).

DATUM.--Altitude of land-surface datum is 1,496 ft (456 m). Measuring point: Top of casing at land-surface datum.

REMARKS.--Water levels in well affected by pumping of nearby wells during irrigation season.

PERIOD OF RECORD.--October 1959 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 96.56 ft (29.43 m) below land-surface datum, Mar. 16, 1963; lowest, 107.15 ft (32.66 m) below land-surface datum, Aug. 25, 1977.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
05	104.92	.....	104.35	103.97	103.25	103.53	103.37	102.83	102.53	102.77	103.25	.....
10	104.90	104.26	104.00	104.25	103.38	103.59	102.82	103.07	103.04	102.30	103.56	104.04
15	104.71	104.55	104.43	103.69	103.95	103.68	103.30	102.98	102.47	102.68	.....	103.92
20	.....	104.63	104.45	103.37	102.97	103.40	103.15	102.80	102.74	102.36	.....	104.35
25	.....	104.20	104.20	103.59	103.73	.....	102.85	102.75	102.73	102.71	.....	104.13
EOM	.....	104.13	104.24	103.69	103.22	.....	103.00	102.92	102.42	102.73	.....	103.82

WTR YEAR 1979 MAX 102.14 MAY 6, 1979 MIN 105.13 OCT 4, 1978

SAUNDERS COUNTY

410426096220401. Local number 13N-9E-24CC.

LOCATION.--Lat 41°04'26", long 96°22'04", SW1/4SW1/4 sec.24, T.13 N., R.9 E., Hydrologic Unit 10200202, 2 mi (3.2 km) north of Ashland. Owner: City of Lincoln.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 1.25 in (0.03 m), depth 12 ft (3.7 m), screened 10 to 12 ft (3.0 to 3.7 m).

DATUM.--Altitude of land-surface datum is 1,065.22 ft (324.68 m). Measuring point: Top of casing 4.50 ft (1.37 m) above land-surface datum.

REMARKS.--Water levels affected by pumping of nearby wells in City of Lincoln well field.

PERIOD OF RECORD.--October 1933 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.48 ft (0.15 m) below land-surface datum, July 31, 1948; lowest, 9.65 ft (2.94 m) below land-surface datum, Oct. 18, 1976.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 20	7.16	DEC 25	6.97	FEB 25	6.23	APR 25	4.10	JUN 25	5.42	AUG 25	6.87
OCT 25	7.19	JAN 25	6.60	MAR 25	3.61	MAY 25	4.10	JUL 25	5.83	SEP 25	7.74

SAUNDERS COUNTY

411005096281502. Local number 14N-8E-24ACD2.

LOCATION.--Lat 41°10'05", long 96°28'15", SE1/4SW1/4NE1/4 sec.24, T.14 N., R.8 E., Hydrologic Unit 10200203, 4 mi (6.4 km) south from the intersection of Routes 92 and 692 near Mead, then 0.65 mi (1.04 km) east and 0.4 mi (0.64 km) south to the south end of load line 2 of the Mead Field Station. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6 in (0.15 m), depth 80 ft (24.4 m), screened 60 to 80 ft (18.3 to 24.4 m).

DATUM.--Altitude of land-surface datum is 1,171 ft (357 m). Measuring point: Top of casing 0.5 ft (0.15 m) above land-surface datum.

REMARKS.--Replacement for well 411005096281501, local number 14N-8E-24ACD1, with period of record July 1964 to November 1970. Water levels in well affected by pumping of nearby wells during irrigation season.

PERIOD OF RECORD.--April 1971 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 42.47 ft (12.94 m) below land-surface datum, May 5, 1974; lowest, 45.80 ft (13.96 m) below land-surface datum, Sept. 30, 1979.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
05	45.33	45.19	-----	-----	-----	45.04	44.87	44.81	44.87	45.16	45.30	45.68
10	45.28	45.18	-----	-----	-----	45.05	44.82	44.83	45.01	45.12	45.46	45.71
15	45.28	45.17	-----	-----	-----	45.06	44.81	44.81	45.05	45.22	45.50	45.75
20	45.23	45.17	-----	-----	-----	44.99	44.85	44.77	45.06	45.15	45.51	45.77
25	45.21	45.12	-----	45.10	-----	44.88	44.86	44.79	45.10	45.18	45.57	45.79
EOM	45.23	-----	-----	45.07	-----	44.88	44.83	44.83	45.10	45.26	45.59	45.80

WTR YEAR 1979 MAX 44.73 APR 11, 1979 MIN 45.80 SEP 30, 1979

SCOTTS BLUFF COUNTY

415325103392801. Local number 22N-55W-11DDC.

LOCATION.--Lat 41°53'25", long 103°39'28", SW1/4NE1/4NE1/4 sec.11, T.22 N., R.55 W., Hydrologic Unit 10180009, 0.5 mi (0.8 km) north of the west intersection of Routes 71 and 26 in Scottsbluff, then 0.8 mi (1.3 km) east. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits, undifferentiated, of Quaternary age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6 in (0.15 m), depth 32 ft (9.8 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 3,953 ft (1,205 m). Measuring point: Top of casing 0.00 ft (0.00 m) above land-surface datum.

REMARKS.--Water levels in well affected by deep percolation of applied irrigation water and seepage losses of nearby irrigation canal and laterals.

PERIOD OF RECORD.--August 1962 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 23.05 ft (7.03 m) below land-surface datum, Sept. 25, 1974; lowest, 26.72 ft (8.14 m) below land-surface datum, May 31, 1979.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
05	25.73	25.75	25.77	25.87	25.98	26.11	26.28	26.52	26.07	25.71	25.85	25.23
10	25.75	25.75	25.79	25.88	26.01	26.14	26.32	26.56	25.38	25.90	25.88	25.02
15	25.75	25.74	25.80	25.90	26.03	26.17	26.35	26.58	25.90	26.13	25.37	24.41
20	25.75	25.75	25.80	25.91	26.06	26.19	26.39	26.61	26.30	26.22	24.85	24.77
25	25.74	25.75	25.83	25.93	26.08	26.22	26.48	26.64	26.48	25.73	24.85	24.93
EOM	25.75	25.76	25.84	25.95	26.10	26.24	26.52	26.72	26.25	25.74	25.17	25.06

WTR YEAR 1979 MAX 24.41 SEP 15, 1979 MIN 26.72 MAY 31, 1979

SCOTTS BLUFF COUNTY

420000103511501. Local number 23N-56W-6AA.

LOCATION.--Lat 42°00'00", long 103°51'15", NE1/4NE1/4 sec.6, T.23 N., R.56 W., Hydrologic Unit 10180009, 4 mi (6.4 km) north and 2 mi (3.2 km) west of intersection of U.S. Highway 26 and State Highway 29 in Mitchell. Owner: Carl Gompert.

AQUIFER.--Sand and gravel deposits, undifferentiated, of Quaternary age.

WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 6 in (0.15 m), depth 118 ft (36.0 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 4,087.7 ft (1,245.9 m). Measuring point: Hole in pump base 0.7 ft (0.21 m) above land-surface datum.

REMARKS.--Water levels affected by withdrawals during irrigation season.

PERIOD OF RECORD.--November 1948 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 29.24 ft (8.91 m) below land-surface datum, Oct. 26, 1949; lowest, 41.04 ft (12.51 m) below land-surface datum, Oct. 6, 1961.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 19	37.37										

SEWARD COUNTY

405406097115001. Local number 11N-2E-21DD.

LOCATION.--Lat 40°54'06", long 97°11'50", SE1/4SE1/4 sec.21, T.11 N., R.2 E., Hydrologic Unit 10270201, 4.5 mi (7.2 km) west of Seward. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 5 in (0.13 m), depth 123 ft (37.5 m), perforated 112 to 123 ft (34.1 to 37.5 m).

DATUM.--Altitude of land-surface datum is 1,550 ft (472 m). Measuring point: Top of casing 0.00 ft (0.00 m) above land-surface datum.

REMARKS.--Water levels in well affected by withdrawals from nearby irrigation wells.

PERIOD OF RECORD.--May 1958 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 76.37 ft (23.28 m) below land-surface datum, Dec. 20, 1965; lowest, 89.77 ft (27.36 m) below land-surface datum, Aug. 29, 1976.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
05	88.16	87.60	87.33	.....	.....	.....	86.42	85.93	85.70	85.88	87.65	88.41
10	87.82	87.56	.....	.....	.....	86.60	85.91	86.00	86.26	85.57	87.96	88.23
15	87.88	86.44	.....	.....	.....	86.72	86.27	86.13	85.74	86.12	88.67	88.51
20	87.64	86.34	.....	.....	.....	86.41	86.25	85.92	85.90	85.97	88.47	88.15
25	87.60	86.95	.....	.....	.....	86.15	85.91	85.90	86.03	86.56	88.68	88.32
EOM	87.93	87.17	.....	.....	.....	86.43	86.06	85.95	85.76	87.23	88.48	88.05

WTR YEAR 1979 MAX 85.25 MAY 7, 1979 MIN 88.70 AUG 23, 1979

SHERIDAN COUNTY

420341102171701. Local number 24N-43W-15AC.

LOCATION.--Lat 42°03'41", long 102°17'17", SW1/4NE1/4 sec.15, T.24 N., R.43 W., Hydrologic Unit 10150003, near intersection of State Highways 2 and 27 in Ellsworth. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 0.75 in (0.02 m), depth 16.8 ft (5.1 m), perforated 16.0 to 16.8 ft (4.9 to 5.1 m).

DATUM.--Altitude of land-surface datum is 3,912 ft (1,192 m). Measuring point: Top of pipe 3.00 ft (0.91 m) above land-surface datum.

REMARKS.--No well reading made in 1979 water year.

PERIOD OF RECORD.--September 1958 to October 1977.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.15 ft (2.48 m) below land-surface datum, Sept. 4, 1958; lowest, 10.85 ft (3.31 m) below land-surface datum, Oct. 20, 1972.

SHERIDAN COUNTY

423034102415001. Local number 29N-46W-10AA.

LOCATION.--Lat 42°30'34", long 102°41'50", NE1/4NE1/4 sec.10, T.29 N., R.46 W., Hydrologic Unit 10150003, at Mirage Flats project headquarters, 11.5 mi (18.5 km) south of Hay Springs. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6 in (0.15 m), depth 100 ft (30.5 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 3,794.5 ft (1,156.6 m). Measuring point: Top of casing 1.5 ft (0.46 m) above land-surface datum.

REMARKS.--Water levels affected by seepage losses from nearby irrigation canal and laterals and by withdrawals from nearby irrigation wells.

PERIOD OF RECORD.--September 1953 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 32.47 ft (9.90 m) below land-surface datum, Aug. 25, 1969; lowest, 38.95 ft (11.87 m) below land-surface datum, May 29, 1954.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
05	36.01	35.99	35.95	.....	35.87	36.15	.....	36.16	36.36	36.57	37.28	36.76
10	35.96	36.02	36.02	35.83	.....	.....	36.07	36.25	36.44	36.60	37.09	36.77
15	36.00	35.98	35.98	.....	35.99	36.14	36.16	36.27	36.46	37.01	37.11	36.57
20	35.98	36.02	35.96	.....	.....	.....	36.20	36.30	36.50	37.11	36.73	36.54
25	35.98	35.98	.....	35.85	36.15	.....	36.17	36.29	36.56	37.09	36.66	36.50
EOM	36.04	35.94	.....	.....	36.10	36.13	36.18	36.37	36.53	36.98	36.65	36.49

WTR YEAR 1979 MAX 35.73 JAN 10, 1979 MIN 37.37 AUG 7, 1979

THOMAS COUNTY

415845100334001. Local number 23N-28W-9DA.

LOCATION.--Lat 41°58'45", long 100°33'40", NE1/4SE1/4 sec.9, T.23 N., R.28 W., Hydrologic Unit 10210001, 1 mi (1.6 km) east of courthouse in Thedford. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits, undifferentiated, of Quaternary age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 1.25 in (0.03 m), depth 15 ft (4.6 m), screened from 13 to 15 ft (4.0 to 4.6 m).

DATUM.--Altitude of land-surface datum is 2,842 ft (866 m). Measuring point: Top of pipe 2.3 ft (0.7 m) above land-surface datum.

PERIOD OF RECORD.--December 1934 to November 1942; August 1944 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.73 ft (2.66 m) below land-surface datum, Oct. 16, 1970; lowest, 10.98 ft (3.35 m) below land-surface datum, July 23, 1940.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 18	10.27										

VALLEY COUNTY

412955099123201. Local number 18N-16W-30CC.

LOCATION.--Lat 41°29'55", long 99°12'32", SW1/4SW1/4 sec.30, T.18 N., R.16 W., Hydrologic Unit 10210003, 4 mi (6.4 km) west and 5 mi (8.0 km) north of Arcadia. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 1.25 in (0.03 m), depth 15 ft (4.6 m), screened from 13 to 15 ft (4.0 to 4.6 m).

DATUM.--Altitude of land-surface datum is 2,217.61 ft (675.93 m). Measuring point: Top of casing 2.00 ft (0.61 m) above land-surface datum.

REMARKS.--Water levels in well affected by evapotranspiration.

PERIOD OF RECORD.--August 1949 to June 1956; June 1958 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.12 ft (0.34 m) below land-surface datum, July 23, 1962; lowest, 5.90 ft (1.80 m) below land-surface datum, Mar. 1, 1973.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 19	3.76G	NOV 6	3.94	DEC 6	4.22G	MAR 6	4.50G	JUN 14	2.70G	AUG 7	2.90G

G MEASUREMENT MADE BY ANOTHER AGENCY

WEBSTER COUNTY

400423098314001. Local number 1N-11W-11AB.

LOCATION.--Lat 40°04'23", long 98°31'40", NW1/4NE1/4 sec.11, T.1 N., R.11 W., Hydrologic Unit 10250016, 1 mi (1.6 km) south and 0.25 mi (0.4 km) west of intersection of U.S. Highways 136 and 281 in Red Cloud. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 8 in (0.20 m), depth 16.9 ft (5.2 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 1,686 ft (514 m). Measuring point: Top of casing 1.1 ft (0.3 m) above land-surface datum.

PERIOD OF RECORD.--May 1946 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.34 ft (0.41 m) below land-surface datum, July 11, 1951; lowest, 10.56 ft (3.22 m) below land-surface datum, Apr. 5, 1957.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 10	8.93	MAY 7	6.15								

YORK COUNTY

404620097482501. Local number 9N-4W-6DD.

LOCATION.--Lat 40°46'20", long 97°48'25", SE1/4SE1/4 sec.6, T.9 N., R.4 W., Hydrologic Unit 10270203, 0.5 mi (0.8 km) south of Henderson. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 18 in (0.46 m), depth 171 ft (52.1 m), casing perforated 83 to 171 ft (25.3 to 52.1 m).

DATUM.--Altitude of land-surface datum is 1,718 ft (524 m). Measuring point: Top of casing 0.0 ft (0.0 m) above land-surface datum.

REMARKS.--Water levels affected by withdrawals from nearby wells during irrigation season.

PERIOD OF RECORD.--May 1959 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 79.44 ft (24.21 m) below land-surface datum, June 20, 1959; lowest, 95.48 ft (29.10 m) below land-surface datum, Sept. 4, 1976.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
05	93.73	.....	.....	91.11	.....	90.66	90.25	89.50	89.20	88.92	91.04	91.63
10	93.54	92.96	92.18	91.60	.....	90.63	89.88	89.60	89.24	88.74	91.90	91.53
15	93.42	92.72	92.03	91.46	.....	90.55	89.96	89.49	89.09	88.82	91.92	91.50
20	93.19	92.66	91.99	91.30	.....	90.45	89.95	89.42	89.10	89.17	91.76	.....
25	93.29	92.47	91.96	91.23	.....	90.33	89.81	89.30	88.99	89.84	91.90	.....
EOM	92.91	92.39	91.73	91.72	90.69	90.34	89.73	89.33	88.86	90.01	91.71	91.26

WTR YEAR 1979 MAX 88.60 JUL 16, 1979 MAX 93.77 OCT 2, 1978

YORK COUNTY

405305097351503. Local number 11N-2W-31BA3.

LOCATION.--Lat 40°53'05", long 97°35'15", NE1/4NW1/4 sec.31, T.11 N., R.2 W., Hydrologic Unit 10270203, south edge of York County Fairgrounds on the north side of York. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 8 in (0.20 m), depth 165 ft (50.3 m), perforated below water table.

DATUM.--Altitude of land-surface datum is 1,659 ft (506 m). Measuring point: Top of casing 1.6 ft (0.5 m) above land-surface datum.

REMARKS.--Replacement for well 405305097351501, local number 11N-2W-31BA1, with period of record October 1957 to January 1969. Water levels in well affected by withdrawals from nearby municipal well and by withdrawals from nearby irrigation wells.

PERIOD OF RECORD.--May 1969 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 88.65 ft (27.02 m) below land-surface datum, Apr. 20, 1970; lowest, 120.81 ft (36.82 m) below land-surface datum, July 15, 1974.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
05	100.03	99.06	98.14	97.63	97.90	97.88	97.87	97.00	98.51	96.85	104.87	100.86
10	99.70	98.96	98.17	97.93	97.80	97.67	97.04	96.93	97.16	97.67	111.75	99.91
15	99.66	98.75	98.71	98.05	97.70	97.63	97.07	97.04	98.87	100.42	105.95	99.46
20	99.68	98.47	97.78	98.54	98.00	97.22	97.10	96.92	97.75	104.85	104.81	99.46
25	99.29	98.57	97.74	97.75	97.42	97.67	97.40	97.92	96.71	102.91	102.05	99.64
EOM	98.93	98.55	.....	97.71	97.35	97.23	97.00	97.75	97.85	100.70	100.39	99.33

WTR YEAR 1979 MAX 96.27 MAY 8, 1979 MIN 112.18 AUG 9, 1979

(Local identifier: indicates location by township, range, and section. Geologic unit: 110 QRNR, Quaternary System; 110 WDBS, Quaternary windblown sand deposits; 112 SDGV, sand and gravel deposits; 121 OGLL, Ogallala Formation; 122 ARKR, Arikaree Group; 123 BRUL, Brule Formation; 123 CDRNB, Chadron Formation, basal sand and gravel; 211 DKOT, Dakota Sandstone; 211 NBRR, Niobrara Formation)

LOCAL IDENT-I-FIER	LAT-I-TUDE	LONG-I-TUDE	SEQ. NO.	GEO-LOGIC UNIT	DATE OF SAMPLE	TIME	DEPTH OF WELL, TOTAL (FEET) (72008)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)
				ADAMS						
5N 9W21CB 1	40 23 08	098 21 03	01	112SDGV	79-08-28	1430	--	552	7.4	15.0
5N 12W27BB 1	40 22 39	098 39 52	01	112SDGV	79-07-26	1055	182	469	7.5	14.0
6N 9W 5DC 1	40 30 44	098 21 37	01	112SDGV	79-08-28	--	--	322	7.3	15.0
6N 10W28DA 1	40 27 27	098 26 19	01	112SDGV	79-08-28	0145	--	376	7.3	15.5
6N 11W21DB 1	40 28 20	098 33 37	01	112SDGV	79-08-28	1230	--	565	7.3	15.0
6N 12W27AB 1	40 27 53	098 39 18	01	112SDGV	79-07-26	1000	190	465	7.5	14.0
7N 9W11DC 1	40 35 03	098 18 13	01	112SDGV	79-06-20	0945	200	460	7.2	14.0
7N 11W12BA 1	40 35 44	098 30 30	01	112SDGV	79-08-28	1055	--	329	7.3	14.5
7N 11W31BC 1	40 32 02	098 36 27	01	112SDGV	79-07-26	0930	195	398	7.5	13.0
8N 12W34BC 1	40 37 15	098 39 52	01	112SDGV	79-08-28	1120	--	261	7.2	14.0
8N 12W34BC 3	40 37 10	098 39 51	03	112SDGV	79-06-20	0840	200	261	7.1	12.0
				BOX BUTTE						
25N 51W31BA 1	42 06 09	103 19 08	01	122ARKR	79-08-31	--	--	375	7.5	13.0
26N 47W13BC 1	42 13 56	102 45 54	01	122ARKR	79-08-28	--	--	495	7.5	12.5
26N 48W12DC 1	42 14 17	102 52 17	01	122ARKR	79-08-28	--	103	482	7.0	15.0
26N 51W19AA 1	42 13 06	103 18 21	01	122ARKR	79-08-30	--	--	412	7.2	15.0
27N 52W10DA 1	42 19 36	103 21 59	01	122ARKR	79-08-31	--	--	320	7.6	14.5
				BROWN						
29N 20W 6BAC 1	42 31 07	099 42 35	01	112SDGV	79-06-05	1425	--	110	7.2	13.0
				112SDGV	79-08-07	1620	--	110	7.3	13.0
				112SDGV	79-09-27	0920	--	105	6.9	13.0
30N 22W23DDB 1	42 33 08	099 51 20	01	121OGLL	79-06-05	1100	--	334	7.1	14.0
				121OGLL	79-08-07	1315	--	348	7.0	13.5
				121OGLL	79-09-26	1330	--	361	7.1	14.0
30N 22W26BDA 1	42 32 42	099 51 43	01	121OGLL	79-06-05	1050	--	163	7.2	15.0
				121OGLL	79-08-07	1330	--	185	7.2	15.5
				121OGLL	79-09-26	1310	--	157	7.1	15.0
30N 23W18ACC 1	42 34 15	100 03 24	01	112SDGV	79-06-04	1600	--	111	6.9	--
				112SDGV	79-08-06	1535	--	113	6.8	17.0
				112SDGV	79-09-25	1535	--	128	6.8	15.5
31N 21W18AAC 1	42 39 44	099 49 09	01	121OGLL	79-08-07	1045	330	192	7.7	14.0
				BUTLER						
13N 4E17ABAB1	41 06 14	096 59 31	01	112SDGV	79-07-09	--	437	590	7.4	--
				CHERRY						
25N 25W27BC 1	42 06 34	100 13 25	01	121OGLL	79-06-26	--	90	165	6.8	12.0
25N 26W 9BB 1	42 09 24	100 21 31	01	121OGLL	79-07-24	--	300	128	7.2	13.0
26N 34W 4CB 1	42 15 19	101 17 36	01	121OGLL	79-08-09	1630	447	159	7.7	15.0
27N 28W23CD 1	42 17 31	100 32 59	01	121OGLL	79-07-24	--	387	310	7.6	13.0
27N 38W 7CC 1	42 19 36	101 48 09	01	121OGLL	79-08-09	1300	300	142	7.8	15.0
28N 30W12CC 1	42 24 40	100 45 59	01	121OGLL	79-07-24	--	400	110	7.7	11.0
31N 25W33CB 1	42 34 48	100 15 31	01	121OGLL	79-06-26	--	353	365	7.6	12.0
31N 35W 2B 1	42 41 47	101 23 46	01	121OGLL	79-07-25	--	--	168	7.7	11.0
32N 38W14CB 1	42 44 54	101 45 00	01	121OGLL	79-07-25	--	200	139	8.1	11.0
32N 39W22BA 1	42 44 29	101 53 05	01	121OGLL	79-07-25	--	300	167	8.1	11.0

LOCAL IDENT- I- FIER	DATE OF SAMPLE	COLOR (PLAT- INUM- COBALT UNITS) (00080)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L CACO3) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L AS HCO3) (00440)
					ADAMS					
5N 9W21CB 1	79-08-28	--	270	32	90	11	14	.4	4.2	290
5N 12W27BB 1	79-07-26	--	210	31	68	10	13	.4	5.5	220
6N 9W 5DC 1	79-08-28	--	130	1	43	6.0	15	.6	5.5	160
6N 10W28DA 1	79-08-28	--	140	0	43	7.5	18	.7	6.7	200
6N 11W21DB 1	79-08-28	--	250	15	83	11	28	.8	8.5	290
6N 12W27AB 1	79-07-26	--	200	30	66	8.7	15	.5	8.4	207
7N 9W11DC 1	79-06-20	--	190	9	62	8.4	27	.9	7.0	--
7N 11W12BA 1	79-08-28	--	140	0	43	7.0	16	.6	4.9	170
7N 11W31BC 1	79-07-26	--	160	0	53	6.7	20	.7	7.9	240
8N 12W34BC 1	79-08-28	--	120	7	39	6.0	10	.4	5.0	140
8N 12W34BC 3	79-06-20	--	120	0	38	6.0	11	.4	6.1	--
					BOX BUTTE					
25N 51W31BA 1	79-08-31	--	150	0	42	10	20	.7	6.2	--
26N 47W13BC 1	79-08-28	--	190	0	55	12	37	1.2	15	--
26N 48W12DC 1	79-08-28	--	160	0	49	10	47	1.6	8.3	--
26N 51W19AA 1	79-08-30	--	170	30	50	11	9.5	.3	4.9	--
27N 52W10DA 1	79-08-31	--	150	18	46	8.0	11	.4	5.1	--
					BROWN					
29N 20W 6BAC 1	79-06-05	--	44	0	15	1.6	4.8	.3	3.7	56
	79-08-07	--	42	0	14	1.7	5.0	.3	3.6	60
	79-09-27	--	39	0	13	1.6	4.6	.3	4.0	56
30N 22W23DDB 1	79-06-05	--	140	41	43	7.8	13	.5	8.1	120
	79-08-07	--	130	34	41	7.2	14	.5	8.3	120
	79-09-26	--	120	15	38	6.6	12	.5	8.0	130
30N 22W26BDA 1	79-06-05	--	69	0	22	3.3	4.6	.3	5.3	84
	79-08-07	--	71	0	22	3.9	7.9	.4	5.3	92
	79-09-26	--	59	0	20	2.2	6.1	.3	4.5	84
30N 23W18ACC 1	79-06-04	--	37	1	12	1.8	5.0	.4	2.6	44
	79-08-06	--	37	0	12	1.8	5.1	.4	2.5	48
	79-09-25	--	37	1	12	1.8	4.7	.3	2.8	44
31N 21W18AAC 1	79-08-07	--	83	0	27	3.9	6.5	.3	5.6	110
					BUTLER					
13N 4E17ABAB1	79-07-09	--	250	0	75	15	16	.4	5.9	--
					CHERRY					
25N 25W27BC 1	79-06-26	--	50	24	15	3.0	5.8	.4	5.7	--
25N 26W 9BB 1	79-07-24	--	52	0	17	2.2	3.9	.2	4.3	--
26N 34W 4CB 1	79-08-09	--	57	0	18	2.9	5.8	.3	5.6	--
27N 28W23CD 1	79-07-24	--	140	0	43	7.5	11	.4	4.3	--
27N 38W 7CC 1	79-08-09	--	53	0	17	2.5	5.5	.3	4.1	--
28N 30W12CC 1	79-07-24	--	32	0	9.9	1.8	5.2	.4	3.8	--
31N 25W33CB 1	79-06-26	--	130	0	40	6.7	13	.5	8.5	--
31N 35W 2B 1	79-07-25	--	67	1	21	3.6	4.6	.2	5.5	--
32N 38W14CB 1	79-07-25	--	57	7	19	2.4	4.3	.2	5.1	--
32N 39W22BA 1	79-07-25	--	68	0	22	3.2	5.3	.3	3.9	--

LOCAL IDENT- I- FIER	DATE OF SAMPLE	CAR- BONATE (MG/L AS CO3) (00445)	ALKA- LINITY (MG/L AS CACO3) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)
				ADAMS						
5N 9W21CB 1	79-08-28	0	238	24	22	--	--	--	--	--
5N 12W27BB 1	79-07-26	0	180	32	13	--	--	--	--	--
6N 9W 5DC 1	79-08-28	0	131	22	4.9	--	--	--	--	--
6N 10W28DA 1	79-08-28	0	164	27	5.5	--	--	--	--	--
6N 11W21DB 1	79-08-28	0	238	39	9.0	--	--	--	--	--
6N 12W27AB 1	79-07-26	0	170	55	6.6	--	--	--	--	--
7N 9W11DC 1	79-06-20	--	180	40	13	.4	25	--	304	.41
7N 11W12BA 1	79-08-28	0	139	18	5.1	--	--	--	--	--
7N 11W31BC 1	79-07-26	0	197	23	2.8	--	--	--	--	--
8N 12W34BC 1	79-08-28	0	115	18	2.6	--	--	--	--	--
8N 12W34BC 3	79-06-20	--	120	16	2.8	.3	31	--	190	.26
				BOX BUTTE						
25N 51W31BA 1	79-08-31	--	150	13	3.1	.6	56	255	265	.35
26N 47W13BC 1	79-08-28	--	200	42	10	.7	56	337	361	.46
26N 48W12DC 1	79-08-28	--	200	48	3.8	.8	60	342	357	.47
26N 51W19AA 1	79-08-30	--	140	15	4.3	.5	55	234	249	.32
27N 52W10DA 1	79-08-31	--	130	15	5.2	.4	58	227	237	.31
				BROWN						
29N 20W 6BAC 1	79-06-05	0	46	4.5	.9	--	--	--	--	--
	79-08-07	0	49	5.9	.7	--	--	--	--	--
	79-09-27	0	46	5.6	.7	.2	54	101	117	.14
30N 22W23DDB 1	79-06-05	0	98	21	6.3	--	--	--	--	--
	79-08-07	0	98	23	7.7	--	--	--	--	--
	79-09-26	0	107	22	5.9	.2	51	246	247	.33
30N 22W26BDA 1	79-06-05	0	69	4.4	1.5	--	--	--	--	--
	79-08-07	0	75	9.6	2.2	--	--	--	--	--
	79-09-26	0	69	5.6	1.1	.3	53	121	140	.16
30N 23W18ACC 1	79-06-04	0	36	11	2.0	--	--	--	--	--
	79-08-06	0	39	12	1.9	--	--	--	--	--
	79-09-25	0	36	12	1.8	.1	33	87	97	.12
31N 21W18AAC 1	79-08-07	--	90	4.3	1.0	--	--	--	--	--
				BUTLER						
13N 4E17ABAB1	79-07-09	--	260	17	6.4	.3	36	385	330	.52
				CHERRY						
25N 25W27BC 1	79-06-26	--	26	8.2	1.7	.2	55	160	148	.18
25N 26W 9BB 1	79-07-24	--	54	2.8	.5	.3	65	139	136	.19
26N 34W 4CB 1	79-08-09	--	71	3.3	.6	.4	60	143	142	.19
27N 28W23CD 1	79-07-24	--	160	4.3	1.2	.5	73	239	243	.33
27N 38W 7CC 1	79-08-09	--	63	3.9	.7	.4	54	126	130	.17
28N 30W12CC 1	79-07-24	--	36	4.6	.4	.3	64	117	116	.16
31N 25W33CB 1	79-06-26	--	160	10	1.4	.4	69	242	246	.33
31N 35W 2B 1	79-07-25	--	66	15	1.0	.4	63	152	155	.21
32N 38W14CB 1	79-07-25	--	50	7.6	.7	.3	62	132	140	.18
32N 39W22BA 1	79-07-25	--	74	5.9	.5	.4	64	148	151	.20

LOCAL IDENT- I- FIER	DATE OF SAMPLE	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00666)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)
				ADAMS						
5N 9W21CB 1	79-08-28	--	2.4	--	--	--	--	--	--	--
5N 12W27BB 1	79-07-26	--	2.2	--	--	--	--	--	--	--
6N 9W 5DC 1	79-08-28	--	2.3	--	--	--	--	--	--	--
6N 10W28DA 1	79-08-28	--	1.7	--	--	--	--	--	--	--
6N 11W21DB 1	79-08-28	--	5.1	--	--	--	--	--	--	--
6N 12W27AB 1	79-07-26	--	.61	--	--	--	--	--	--	--
7N 9W11DC 1	79-06-20	--	3.0	--	--	--	--	--	.15	--
7N 11W12BA 1	79-08-28	--	2.0	--	--	--	--	--	--	--
7N 11W31BC 1	79-07-26	--	.66	--	--	--	--	--	--	--
8N 12W34BC 1	79-08-28	--	1.3	--	--	--	--	--	--	--
8N 12W34BC 3	79-06-20	--	1.4	--	--	--	--	--	.22	--
				BOX BUTTE						
25N 51W31BA 1	79-08-31	--	5.3	--	--	--	--	--	--	--
26N 47W13BC 1	79-08-28	--	3.0	--	--	--	--	--	--	--
26N 48W12DC 1	79-08-28	--	2.3	--	--	--	--	--	--	--
26N 51W19AA 1	79-08-30	--	3.4	--	--	--	--	--	--	--
27N 52W10DA 1	79-08-31	--	2.2	--	--	--	--	--	--	--
				BROWN						
29N 20W 6BAC 1	79-06-05	--	1.4	--	--	--	--	--	--	--
	79-08-07	--	1.3	--	--	--	--	--	--	--
	79-09-27	--	1.3	--	--	--	--	--	.00	--
30N 22W23DDB 1	79-06-05	--	9.5	--	--	--	--	--	--	--
	79-08-07	--	9.6	--	--	--	--	--	--	--
	79-09-26	--	8.8	--	--	--	--	--	.32	--
30N 22W26BDA 1	79-06-05	--	1.7	--	--	--	--	--	--	--
	79-08-07	--	2.9	--	--	--	--	--	--	--
	79-09-26	--	1.4	--	--	--	--	--	.13	--
30N 23W18ACC 1	79-06-04	--	1.5	--	--	--	--	--	--	--
	79-08-06	--	1.6	--	--	--	--	--	--	--
	79-09-25	--	1.7	--	--	--	--	--	.23	--
31N 21W18AAC 1	79-08-07	--	1.1	--	--	--	--	--	--	--
				BUTLER						
13N 4E17ABAB1	79-07-09	.01	.00	.04	.02	.06	.07	.06	--	0
				CHERRY						
25N 25W27BC 1	79-06-26	--	8.4	--	--	--	--	--	--	--
25N 26W 9BB 1	79-07-24	--	1.6	--	--	--	--	--	--	--
26N 34W 4CB 1	79-08-09	--	.53	--	--	--	--	--	--	--
27N 28W23CD 1	79-07-24	--	.32	--	--	--	--	--	--	--
27N 38W 7CC 1	79-08-09	--	.82	--	--	--	--	--	--	--
28N 30W12CC 1	79-07-24	--	.95	--	--	--	--	--	--	--
31N 25W33CB 1	79-06-26	--	.12	--	--	--	--	--	--	--
31N 35W 2B 1	79-07-25	--	.21	--	--	--	--	--	--	--
32N 38W14CB 1	79-07-25	--	1.8	--	--	--	--	--	--	--
32N 39W22BA 1	79-07-25	--	.23	--	--	--	--	--	--	--

LOCAL IDENT-I-FIER	DATE OF SAMPLE	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)
ADAMS										
5N 9W21CB 1	79-08-28	--	--	--	--	--	--	--	--	--
5N 12W27BB 1	79-07-26	--	--	--	--	--	--	--	--	--
6N 9W 5DC 1	79-08-28	--	--	--	--	--	--	--	--	--
6N 10W28DA 1	79-08-28	--	--	--	--	--	--	--	--	--
6N 11W21DB 1	79-08-28	--	--	--	--	--	--	--	--	--
6N 12W27AB 1	79-07-26	--	--	--	--	--	--	--	--	--
7N 9W11DC 1	79-06-20	--	--	--	80	--	--	--	--	40
7N 11W12BA 1	79-08-28	--	--	--	--	--	--	--	--	--
7N 11W31BC 1	79-07-26	--	--	--	--	--	--	--	--	--
8N 12W34BC 1	79-08-28	--	--	--	--	--	--	--	--	--
8N 12W34BC 3	79-06-20	--	--	--	50	--	--	--	--	10
BOX BUTTE										
25N 51W31BA 1	79-08-31	6	--	--	50	0	10	--	1	0
26N 47W13BC 1	79-08-29	11	--	--	80	0	10	--	1	0
26N 48W12DC 1	79-08-28	5	--	--	90	0	20	--	1	10
26N 51W19AA 1	79-08-30	5	--	--	40	0	10	--	1	0
27N 52W10DA 1	79-08-31	4	--	--	80	0	10	--	1	10
BROWN										
29N 20W 6BAC 1	79-06-05	--	--	--	--	--	--	--	--	--
	79-08-07	--	--	--	--	--	--	--	--	--
	79-09-27	--	--	--	--	--	--	--	--	--
30N 22W23DDB 1	79-06-05	--	--	--	--	--	--	--	--	--
	79-08-07	--	--	--	--	--	--	--	--	--
	79-09-26	--	--	--	--	--	--	--	--	--
30N 22W26BDA 1	79-06-05	--	--	--	--	--	--	--	--	--
	79-08-07	--	--	--	--	--	--	--	--	--
	79-09-26	--	--	--	--	--	--	--	--	--
30N 23W18ACC 1	79-06-04	--	--	--	--	--	--	--	--	--
	79-08-06	--	--	--	--	--	--	--	--	--
	79-09-25	--	--	--	--	--	--	--	--	--
31N 21W18AAC 1	79-08-07	--	--	--	--	--	--	--	--	--
BUTLER										
13N 4E17ABAB1	79-07-09	8	100	<1	60	<1	0	<3	0	730
CHERRY										
25N 25W27BC 1	79-06-26	1	--	--	30	<1	0	--	1	10
25N 26W 9BB 1	79-07-24	6	--	--	20	--	10	--	1	110
26N 34W 4CB 1	79-08-09	13	--	--	40	--	0	--	1	0
27N 28W23CD 1	79-07-24	8	--	--	40	--	10	--	1	100
27N 38W 7CC 1	79-08-09	7	--	--	20	--	0	--	2	20
28N 30W12CC 1	79-07-24	3	--	--	500	--	0	--	0	20
31N 25W33CB 1	79-06-26	12	--	--	50	--	0	--	1	0
31N 35W 2B 1	79-07-25	10	--	--	230	--	10	--	1	40
32N 38W14CB 1	79-07-25	5	--	--	30	--	0	--	2	30
32N 39W22BA 1	79-07-25	10	--	--	10	<1	10	--	2	10

LOCAL IDENT-I-FIER	DATE OF SAMPLE	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	LITHIUM DIS-SOLVED (UG/L AS LI) (01130)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)
				ADAMS				
5N 9W21CB 1	79-08-28	--	--	--	--	--	--	--
5N 12W27BB 1	79-07-26	--	--	--	--	--	--	--
6N 9W 5DC 1	79-08-28	--	--	--	--	--	--	--
6N 10W28DA 1	79-08-28	--	--	--	--	--	--	--
6N 11W21DB 1	79-08-28	--	--	--	--	--	--	--
6N 12W27AB 1	79-07-26	--	--	--	--	--	--	--
7N 9W11DC 1	79-06-20	--	--	60	--	--	--	--
7N 11W12BA 1	79-08-28	--	--	--	--	--	--	--
7N 11W31BC 1	79-07-26	--	--	--	--	--	--	--
8N 12W34BC 1	79-08-28	--	--	--	--	--	--	--
8N 12W34BC 3	79-06-20	--	--	20	--	--	--	--
				BOX BUTTE				
25N 51W31BA 1	79-08-31	0	--	10	.0	--	--	1
26N 47W13BC 1	79-08-28	0	--	10	.3	--	--	5
26N 48W12DC 1	79-08-28	0	--	20	.0	--	--	2
26N 51W19AA 1	79-08-30	0	--	0	.0	--	--	1
27N 52W10DA 1	79-08-31	0	--	10	.0	--	--	2
				BROWN				
29N 20W 6BAC 1	79-06-05	--	--	--	--	--	--	--
	79-08-07	--	--	--	--	--	--	--
	79-09-27	--	--	--	--	--	--	--
30N 22W23DDB 1	79-06-05	--	--	--	--	--	--	--
	79-08-07	--	--	--	--	--	--	--
	79-09-26	--	--	--	--	--	--	--
30N 22W26BDA 1	79-06-05	--	--	--	--	--	--	--
	79-08-07	--	--	--	--	--	--	--
	79-09-26	--	--	--	--	--	--	--
30N 23W18ACC 1	79-06-04	--	--	--	--	--	--	--
	79-08-06	--	--	--	--	--	--	--
	79-09-25	--	--	--	--	--	--	--
31N 21W18AAC 1	79-08-07	--	--	--	--	--	--	--
				BUTLER				
13N 4E17ABAB1	79-07-09	0	20	510	.1	<10	2	1
				CHERRY				
25N 25W27BC 1	79-06-26	0	--	<1	.0	--	--	0
25N 26W 9BB 1	79-07-24	0	--	5	.1	--	--	0
26N 34W 4CB 1	79-08-09	4	--	10	.3	--	--	1
27N 28W23CD 1	79-07-24	0	--	360	.3	--	--	0
27N 38W 7CC 1	79-08-09	3	--	2	.2	--	--	0
28N 30W12CC 1	79-07-24	0	--	5	.0	--	--	0
31N 25W33CB 1	79-06-26	0	--	70	.0	--	--	0
31N 35W 2B 1	79-07-25	2	--	130	.0	--	--	0
32N 38W14CB 1	79-07-25	4	--	10	.0	--	--	0
32N 39W22BA 1	79-07-25	0	--	20	.2	--	--	0

LOCAL IDENT- I- FIER	DATE OF SAMPLE	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)
	ADAMS				
5N 9W21CB 1	79-08-28	--	--	--	--
5N 12W27BB 1	79-07-26	--	--	--	--
6N 9W 5DC 1	79-08-28	--	--	--	--
6N 10W28DA 1	79-08-28	--	--	--	--
6N 11W21DB 1	79-08-28	--	--	--	--
6N 12W27AB 1	79-07-26	--	--	--	--
7N 9W11DC 1	79-06-20	--	--	--	--
7N 11W12BA 1	79-08-28	--	--	--	--
7N 11W31BC 1	79-07-26	--	--	--	--
8N 12W34BC 1	79-08-28	--	--	--	--
8N 12W34BC 3	79-06-20	--	--	--	--
	BOX BUTTE				
25N 51W31BA 1	79-08-31	--	--	--	6
26N 47W13BC 1	79-08-28	--	--	--	7
26N 48W12DC 1	79-08-28	--	--	--	6
26N 51W19AA 1	79-08-30	--	--	--	4
27N 52W10DA 1	79-08-31	--	--	--	340
	BROWN				
29N 20W 6BAC 1	79-06-05	--	--	--	--
	79-08-07	--	--	--	--
	79-09-27	--	--	--	--
30N 22W23DDB 1	79-06-05	--	--	--	--
	79-08-07	--	--	--	--
	79-09-26	--	--	--	--
30N 22W26BDA 1	79-06-05	--	--	--	--
	79-08-07	--	--	--	--
	79-09-26	--	--	--	--
30N 23W18ACC 1	79-06-04	--	--	--	--
	79-08-06	--	--	--	--
	79-09-25	--	--	--	--
31N 21W18AAC 1	79-08-07	--	--	--	--
	BUTLER				
13N 4E17ABAB1	79-07-09	0	490	<1.0	7
	CHERRY				
25N 25W27BC 1	79-06-26	--	--	--	100
25N 26W 9BB 1	79-07-24	--	--	--	<3
26N 34W 4CB 1	79-08-09	--	--	--	6
27N 28W23CD 1	79-07-24	--	--	--	4
27N 38W 7CC 1	79-08-09	--	--	--	8
28N 30W12CC 1	79-07-24	--	--	--	5
31N 25W33CB 1	79-06-26	--	--	--	<3
31N 35W 2B 1	79-07-25	--	--	--	<3
32N 38W14CB 1	79-07-25	--	--	--	70
32N 39W22BA 1	79-07-25	--	--	--	<3

CHEMICAL ANALYSES OF GROUND WATER IN NEBRASKA

LOCAL IDENT-I-FIER		LAT-I-TUDE	LONG-I-TUDE	SEQ. NO.	GEO-LOGIC UNIT	DATE OF SAMPLE	TIME	DEPTH OF WELL, TOTAL (FEET) (72008)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)
					CHERRY						
33N 40W35BA	1	42 47 50	101 59 44	01	121OGLL	79-07-26	--	417	230	8.1	11.0
34N 27W 6A	1	42 57 05	100 32 14	01	121OGLL	79-06-27	--	150	395	8.3	12.0
34N 31W11DA	1	42 55 58	100 55 42	01	121OGLL	79-06-27	--	156	225	6.9	11.0
34N 33W 7AC	1	42 56 13	101 14 55	01	121OGLL	79-06-27	--	150	237	7.9	11.0
34N 37W20AA	1	42 54 40	101 41 44	01	121OGLL	79-06-27	--	281	245	7.4	12.0
					CLAY						
5N 5W13CA	1	40 23 59	097 50 11	01	112SDGV	79-08-29	--	--	411	7.2	15.0
5N 6W26CA	1	40 22 15	097 58 08	01	112SDGV	79-08-29	0945	--	605	7.3	14.5
5N 7W 3CB	1	40 25 44	098 06 21	01	112SDGV	79-08-28	1530	--	418	7.3	15.0
5N 7W32DB	1	40 21 23	098 08 03	01	112SDGV	79-08-28	0245	--	1290	6.9	15.0
6N 7W 1AA	1	40 31 23	098 03 14	01	112SDGV	79-08-29	0900	--	768	7.5	15.0
6N 8W 8CB	1	40 30 05	098 15 24	01	112SDGV	79-08-28	1630	--	333	7.5	15.0
6N 8W 8CB	3	40 30 01	098 15 29	03	112SDGV	79-06-20	1045	192	308	7.0	14.0
7N 5W 2AA	1	40 36 34	097 50 43	01	112SDGV	79-06-20	1325	215	431	7.1	14.0
8N 7W27DC	1	40 37 59	098 05 48	01	112SDGV	79-06-20	1155	204	473	6.9	14.0
					DAWES						
29N 48W 9DA	1	42 30 03	102 57 01	01	122ARKR	79-08-30	--	--	310	6.9	14.0
29N 49W21AC	1	42 28 32	103 05 06	01	122ARKR	79-08-30	--	--	300	7.3	13.5
29N 52W25DA	1	42 27 23	103 21 58	01	122ARKR	79-08-30	--	--	375	7.6	14.5
30N 48W16CB	1	42 34 23	102 57 53	01	122ARKR	79-08-30	--	--	335	7.5	14.0
					FILLMORE						
5N 1W 8BA	1	40 25 16	097 27 20	01	112SDGV	79-08-29	--	--	928	7.3	15.0
5N 2W 7DB	1	40 24 51	097 35 05	01	112SDGV	79-08-29	--	--	522	7.3	15.0
5N 3W34AB	1	40 21 48	097 39 01	01	112SDGV	79-08-29	--	--	431	7.1	15.0
5N 4W12AD	1	40 25 00	097 43 14	01	112SDGV	79-06-20	1410	131	405	6.8	14.0
5N 4W12BD	1	40 25 04	097 43 18	01	112SDGV	79-08-29	--	--	428	7.3	15.0
7N 3W36DB	1	40 31 45	097 36 09	01	112SDGV	79-06-20	1510	196	458	7.1	14.0
8N 1W20DA	2	40 38 43	097 27 06	02	112SDGV	79-06-20	1700	306	1010	7.1	14.0
					FRANKLIN						
4N 13W24AD	1	40 18 01	098 43 39	01	112SDGV	79-07-26	1150	150	574	7.6	14.5
4N 14W 2DD	1	40 20 15	098 51 39	01	112SDGV	79-07-25	1720	117	550	7.5	14.0
					FRONTIER						
5N 25W12DDD	1	40 24 30	100 05 44	01	121OGLL	79-09-12	--	--	471	7.3	15.0
5N 28W22CC	1	40 22 52	100 29 36	01	121OGLL	79-05-16	--	--	--	--	11.0
					121OGLL	79-09-04	--	--	479	7.8	16.0
5N 29W 6DB	1	40 25 38	100 39 16	01	121OGLL	79-09-11	--	--	461	7.6	15.0
5N 29W35DBC	1	40 21 12	100 34 50	01	--	79-08-31	--	--	469	6.7	18.0
6N 24W10CDD	1	40 29 49	100 01 42	01	121OGLL	79-09-12	--	--	522	7.3	15.0
6N 24W27D	1	40 27 22	100 01 21	01	--	79-09-05	--	--	502	7.4	14.5
6N 25W20CD	1	40 28 05	100 10 57	01	121OGLL	79-09-12	--	--	490	7.6	15.5
6N 26W21C	1	40 28 09	100 16 49	01	--	79-09-04	--	--	581	7.5	14.0
6N 27W27CB	1	40 27 24	100 22 45	01	121OGLL	79-09-13	--	--	431	7.3	15.0
6N 29W 8BB	1	40 30 37	100 38 45	01	121OGLL	79-05-16	--	--	--	--	15.5
					121OGLL	79-09-11	--	--	431	7.8	15.5
6N 29W26B	1	40 27 43	100 35 11	01	--	79-09-04	--	--	456	7.5	15.5

LOCAL IDENT- I- FIER	DATE OF SAMPLE	COLOR (PLAT- INUM- COBALT UNITS) (00080)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L CACO3) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L AS HCO3) (00440)
					CHERRY					
33N 40W35BA 1	79-07-26	20	92	0	28	5.4	4.7	.2	5.8	--
34N 27W 6A 1	79-06-27	--	160	0	51	7.8	10	.3	9.0	--
34N 31W11DA 1	79-06-27	--	92	0	30	4.1	4.3	.2	6.2	--
34N 33W 7AC 1	79-06-27	--	84	47	28	3.4	4.1	.2	7.7	--
34N 37W20AA 1	79-06-27	--	77	0	23	4.8	14	.7	11	--
					CLAY					
5N 5W13CA 1	79-08-29	--	180	28	57	8.0	19	.6	5.3	180
5N 6W26CA 1	79-08-29	--	230	12	82	7.0	34	1.0	6.4	270
5N 7W 3CB 1	79-08-28	--	190	21	61	8.0	18	.6	5.7	200
5N 7W32DB 1	79-08-28	--	560	270	170	34	59	1.1	15	360
6N 7W 1AA 1	79-08-29	--	300	78	100	12	34	.9	8.1	270
6N 8W 8CB 1	79-08-28	--	140	11	47	6.0	15	.5	5.4	160
6N 8W 8CB 3	79-06-20	--	130	0	42	6.4	16	.6	6.6	--
7N 5W 2AA 1	79-06-20	--	200	14	65	10	22	.7	6.6	--
8N 7W27DC 1	79-06-20	--	190	54	61	10	21	.7	7.1	--
					DAWES					
29N 48W 9DA 1	79-08-30	--	150	0	49	6.0	13	.5	7.7	--
29N 49W21BC 1	79-08-30	--	120	0	34	8.0	15	.6	6.3	--
29N 52W25DA 1	79-08-30	--	120	0	36	7.5	22	.9	2.9	--
30N 48W16CB 1	79-08-30	--	150	0	45	8.0	16	.6	6.0	--
					FILLMORE					
5N 1W 8BA 1	79-08-29	--	450	130	140	25	28	.6	8.8	390
5N 2W 7DB 1	79-08-29	--	200	37	64	10	30	.9	5.3	200
5N 3W34BB 1	79-08-29	--	180	28	60	8.3	18	.6	5.6	190
5N 4W12AD 1	79-06-20	--	180	19	59	7.8	24	.8	7.2	--
5N 4W12BD 1	79-08-29	--	160	0	50	7.6	23	.8	5.4	190
7N 3W36DB 1	79-06-20	--	210	25	64	11	25	.8	4.6	--
8N 1W20DB 2	79-06-20	--	500	250	160	24	52	1.0	6.5	--
					FRANKLIN					
4N 13W24AD 1	79-07-26	--	260	30	86	12	15	.4	8.1	280
4N 14W 2DD 1	79-07-25	--	240	20	77	12	17	.5	9.0	270
					FRONTIER					
5N 25W12DDDD1	79-09-12	--	230	6	69	13	10	.3	9.5	--
5N 28W22CC 1	79-05-16	--	190	0	48	17	21	.7	12	--
	79-09-04	--	210	0	56	17	20	.6	12	--
5N 29W 6DB 1	79-09-11	--	200	0	54	17	17	.5	13	--
5N 29W35DBC 1	79-08-31	--	250	26	67	19	17	.5	12	--
6N 24W10CDD 1	79-09-12	--	250	0	70	18	9.6	.3	11	--
6N 24W27D 1	79-09-05	--	250	4	72	18	9.4	.3	11	--
6N 25W20CD 1	79-09-12	--	240	0	64	19	9.7	.3	11	--
6N 26W21C 1	79-09-04	--	270	1	82	16	14	.4	12	--
6N 27W27CB 1	79-09-13	--	200	0	53	16	10	.3	11	--
6N 29W 8BB 1	79-05-16	--	190	10	48	17	13	.4	13	--
	79-09-11	--	190	0	50	15	12	.4	13	--
6N 29W26B 1	79-09-04	--	200	2	53	17	12	.4	12	--

LOCAL IDENT- I- FIER	DATE OF SAMPLE	CAR- BONATE (MG/L AS CO3) (00445)	ALKA- LINITY (MG/L AS CACO3) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)
				CHERRY						
33N 40W35BA 1	79-07-26	--	98	9.4	.7	.4	--	160	--	.22
34N 27W 6A 1	79-06-27	--	160	8.4	7.4	.4	62	273	278	.37
34N 31W11DA 1	79-06-27	--	95	3.3	2.0	.3	56	176	172	.24
34N 33W 7AC 1	79-06-27	--	37	15	7.1	.1	66	222	194	.30
34N 37W20AA 1	79-06-27	--	87	15	3.1	.4	59	191	188	.26
				CLAY						
5N 5W13CA 1	79-08-29	0	148	29	15	--	--	--	--	--
5N 6W26CA 1	79-08-29	0	221	47	17	--	--	--	--	--
5N 7W 3CB 1	79-08-28	0	164	30	11	--	--	--	--	--
5N 7W32DB 1	79-08-28	0	295	130	75	--	--	--	--	--
6N 7W 1AA 1	79-08-29	0	221	84	30	--	--	--	--	--
6N 8W 8CB 1	79-08-28	0	131	17	6.6	--	--	--	--	--
6N 8W 8CB 3	79-06-20	--	140	14	6.7	.3	26	--	214	.29
7N 5W 2AA 1	79-06-20	--	190	34	18	.3	29	--	301	.41
8N 7W27DC 1	79-06-20	--	140	76	14	.3	30	--	306	.42
				DAWES						
29N 48W 9DA 1	79-08-30	--	150	11	1.9	.5	56	227	242	.31
29N 49W21BC 1	79-08-30	--	130	12	1.4	.5	55	208	217	.28
29N 52W25DA 1	79-08-30	--	130	12	5.4	.6	64	230	238	.31
30N 48W16CB 1	79-08-30	--	160	16	1.1	.4	55	240	247	.33
				FILLMORE						
5N 1W 8BA 1	79-08-29	0	320	180	7.5	--	--	--	--	--
5N 2W 7DB 1	79-08-29	0	164	93	14	--	--	--	--	--
5N 3W34BB 1	79-08-29	0	156	34	15	--	--	--	--	--
5N 4W12BD 1	79-06-20	--	160	33	15	.4	33	--	287	.39
5N 4W12BD 1	79-08-29	0	156	37	15	--	--	--	--	--
7N 3W36DB 1	79-06-20	--	180	53	16	.3	28	--	316	.43
8N 1W20DB 2	79-06-20	--	250	300	27	.3	28	--	785	1.07
				FRANKLIN						
4N 13W24AD 1	79-07-26	0	230	55	8.7	--	--	--	--	--
4N 14W 20D 1	79-07-25	0	221	66	6.8	--	--	--	--	--
				FRONTIER						
5N 25W12DDDD1	79-09-12	--	220	22	3.1	.5	62	--	333	.45
5N 28W22CC 1	79-05-16	--	210	20	6.0	.7	69	--	338	.46
	79-09-04	--	210	22	5.5	.8	70	--	347	.47
5N 29W 6DB 1	79-09-11	--	210	21	5.2	.9	70	--	341	.46
5N 29W35DBC 1	79-08-31	--	220	22	3.5	.8	62	--	351	.48
6N 24W10CDD 1	79-09-12	--	250	22	2.8	.5	65	--	364	.50
6N 24W27D 1	79-09-05	--	250	20	3.2	.5	60	--	354	.48
6N 25W20CD 1	79-09-12	--	240	19	2.4	.5	66	--	347	.47
6N 26W21C 1	79-09-04	--	270	24	5.6	.6	53	--	389	.53
6N 27W27CB 1	79-09-13	--	200	18	3.8	1.0	64	--	309	.42
6N 29W 8BB 1	79-05-16	--	180	20	5.6	.8	75	--	317	.43
	79-09-11	--	190	22	5.1	.8	68	--	316	.43
6N 29W26B 1	79-09-04	--	200	20	3.6	.8	59	--	311	.42

LOCAL IDENT-I-FIER	DATE OF SAMPLE	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P) (00666)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)
					CHERRY					
33N 40W35BA 1	79-07-26	--	1.8	--	--	--	--	--	--	--
34N 27W 6A 1	79-06-27	--	5.7	--	--	--	--	--	--	--
34N 31W11DA 1	79-06-27	--	1.9	--	--	--	--	--	--	--
34N 33W 7AC 1	79-06-27	--	9.2	--	--	--	--	--	--	--
34N 37W20AA 1	79-06-27	--	1.2	--	--	--	--	--	--	--
					CLAY					
5N 5W13CA 1	79-08-29	--	4.5	--	--	--	--	--	--	--
5N 6W26CA 1	79-08-29	--	7.7	--	--	--	--	--	--	--
5N 7W 3CB 1	79-08-28	--	5.5	--	--	--	--	--	--	--
5N 7W32DB 1	79-08-28	--	45	--	--	--	--	--	--	--
6N 7W 1AA 1	79-08-29	--	5.8	--	--	--	--	--	--	--
6N 8W 8CB 1	79-08-28	--	3.2	--	--	--	--	--	--	--
6N 8W 8CB 3	79-06-20	--	2.7	--	--	--	--	--	.25	--
7N 5W 2AA 1	79-06-20	--	.34	--	--	--	--	--	.17	--
8N 7W27DC 1	79-06-20	--	.84	--	--	--	--	--	.18	--
					DAWES					
29N 48W 9DA 1	79-08-30	--	1.6	--	--	--	--	--	--	--
29N 49W21BC 1	79-08-30	--	1.4	--	--	--	--	--	--	--
29N 52W25DA 1	79-08-30	--	2.0	--	--	--	--	--	--	--
30N 48W16CB 1	79-08-30	--	.71	--	--	--	--	--	--	--
					FILLMORE					
5N 1W 8BA 1	79-08-29	--	3.9	--	--	--	--	--	--	--
5N 2W 7DB 1	79-08-29	--	.07	--	--	--	--	--	--	--
5N 3W34BB 1	79-08-29	--	4.3	--	--	--	--	--	--	--
5N 4W12BD 1	79-06-20	--	2.6	--	--	--	--	--	.29	--
5N 4W12BD 1	79-08-29	--	2.2	--	--	--	--	--	--	--
7N 3W36DB 1	79-06-20	--	1.2	--	--	--	--	--	.21	--
8N 1W20DB 2	79-06-20	--	8.3	--	--	--	--	--	.22	--
					FRANKLIN					
4N 13W24AD 1	79-07-26	--	2.1	--	--	--	--	--	--	--
4N 14W 2DD 1	79-07-25	--	.07	--	--	--	--	--	--	--
					FRONTIER					
5N 25W12DDDD1	79-09-12	--	2.6	--	--	--	--	--	--	--
5N 28W22CC 1	79-05-16	--	4.0	--	--	--	--	--	--	--
	79-09-04	--	3.9	--	--	--	--	--	--	--
5N 29W 6DB 1	79-09-11	--	3.7	--	--	--	--	--	--	--
5N 29W35DBC 1	79-08-31	--	3.4	--	--	--	--	--	--	--
6N 24W10CDD 1	79-09-12	--	3.3	--	--	--	--	--	--	--
6N 24W27D 1	79-09-05	--	2.1	--	--	--	--	--	--	--
6N 25W20CD 1	79-09-12	--	2.5	--	--	--	--	--	--	--
6N 26W21C 1	79-09-04	--	4.3	--	--	--	--	--	--	--
6N 27W27CB 1	79-09-13	--	2.6	--	--	--	--	--	--	--
6N 29W 8BB 1	79-05-16	--	3.7	--	--	--	--	--	--	--
	79-09-11	--	3.6	--	--	--	--	--	--	--
6N 29W26B 1	79-09-04	--	3.0	--	--	--	--	--	--	--

CHEMICAL ANALYSES OF GROUND WATER IN NEBRASKA

LOCAL IDENT-I-FIER	DATE OF SAMPLE	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)
					CHERRY					
33N 40W35BA 1	79-07-26	5	--	--	--	2	10	--	0	0
34N 27W 6A 1	79-06-27	5	--	--	20	--	10	--	1	20
34N 31W11DA 1	79-06-27	4	--	--	20	--	10	--	0	40
34N 33W 7AC 1	79-06-27	1	--	--	20	--	0	--	1	0
34N 37W20AA 1	79-06-27	4	--	--	60	2	0	--	3	10
					CLAY					
5N 5W13CA 1	79-08-29	--	--	--	--	--	--	--	--	--
5N 6W26CA 1	79-08-29	--	--	--	--	--	--	--	--	--
5N 7W 3CB 1	79-08-28	--	--	--	--	--	--	--	--	--
5N 7W32DB 1	79-08-28	--	--	--	--	--	--	--	--	--
6N 7W 1AA 1	79-08-29	--	--	--	--	--	--	--	--	--
6N 8W 8CB 1	79-08-28	--	--	--	--	--	--	--	--	--
6N 8W 8CB 3	79-06-20	--	--	--	50	--	--	--	--	30
7N 5W 2AA 1	79-06-20	--	--	--	60	--	--	--	--	70
8N 7W27DC 1	79-06-20	--	--	--	70	--	--	--	--	20
					DAWES					
29N 48W 9DA 1	79-08-30	4	--	--	30	0	10	--	2	0
29N 49W21BC 1	79-08-30	4	--	--	30	0	10	--	1	0
29N 52W25DA 1	79-08-30	4	--	--	40	0	10	--	1	40
30N 48W16CB 1	79-08-30	5	--	--	40	0	10	--	1	0
					FILLMORE					
5N 1W 8BA 1	79-08-29	--	--	--	--	--	--	--	--	--
5N 2W 7DB 1	79-08-29	--	--	--	--	--	--	--	--	--
5N 3W34AB 1	79-08-29	--	--	--	--	--	--	--	--	--
5N 4W12BD 1	79-06-20	--	--	--	100	--	--	--	--	10
5N 4W12BD 1	79-08-29	--	--	--	--	--	--	--	--	--
7N 3W36DB 1	79-06-20	--	--	--	70	--	--	--	--	10
8N 1W20DB 2	79-06-20	--	--	--	100	--	--	--	--	10
					FRANKLIN					
4N 13W24AD 1	79-07-26	--	--	--	--	--	--	--	--	--
4N 14W 20D 1	79-07-25	--	--	--	--	--	--	--	--	--
					FRONTIER					
5N 25W12DDDD1	79-09-12	--	--	--	70	--	--	--	--	--
5N 28W22CC 1	79-05-16	--	--	--	100	--	--	--	--	--
	79-09-04	--	--	--	70	--	--	--	--	--
5N 29W 6DB 1	79-09-11	--	--	--	80	--	--	--	--	--
5N 29W35DBC 1	79-08-31	--	--	--	80	--	--	--	--	--
6N 24W10CDD 1	79-09-12	--	--	--	70	--	--	--	--	--
6N 24W27D 1	79-09-05	--	--	--	60	--	--	--	--	--
6N 25W20CD 1	79-09-12	--	--	--	60	--	--	--	--	--
6N 26W21C 1	79-09-04	--	--	--	90	--	--	--	--	--
6N 27W27CB 1	79-09-13	--	--	--	70	--	--	--	--	--
6N 29W 8BB 1	79-05-16	--	--	--	70	--	--	--	--	--
	79-09-11	--	--	--	80	--	--	--	--	--
6N 29W26B 1	79-09-04	--	--	--	70	--	--	--	--	--

LOCAL IDENT- I- FIER	DATE OF SAMPLE	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)
				CHERRY				
33N 40W35BA 1	79-07-26	0	--	1	.0	--	--	0
34N 27W 6A 1	79-06-27	0	--	2	.0	--	--	1
34N 31W11DA 1	79-06-27	0	--	1	.0	--	--	1
34N 33W 7AC 1	79-06-27	0	--	<1	.0	--	--	0
34N 37W20AA 1	79-06-27	0	--	90	.0	--	--	0
				CLAY				
5N 5W13CA 1	79-08-29	--	--	--	--	--	--	--
5N 6W26CA 1	79-08-29	--	--	--	--	--	--	--
5N 7W 3CB 1	79-08-28	--	--	--	--	--	--	--
5N 7W32DB 1	79-08-28	--	--	--	--	--	--	--
6N 7W 1AA 1	79-08-29	--	--	--	--	--	--	--
6N 8W 8CB 1	79-08-28	--	--	--	--	--	--	--
6N 8W 8CB 3	79-06-20	--	--	10	--	--	--	--
7N 5W 2AA 1	79-06-20	--	--	30	--	--	--	--
8N 7W27DC 1	79-06-20	--	--	10	--	--	--	--
				DAWES				
29N 48W 9DA 1	79-08-30	0	--	10	.1	--	--	0
29N 49W21BC 1	79-08-30	0	--	0	.0	--	--	0
29N 52W25DA 1	79-08-30	0	--	0	.0	--	--	2
30N 48W16CB 1	79-08-30	0	--	0	.0	--	--	0
				FILLMORE				
5N 1W 8BA 1	79-08-29	--	--	--	--	--	--	--
5N 2W 7DB 1	79-08-29	--	--	--	--	--	--	--
5N 3W34BB 1	79-08-29	--	--	--	--	--	--	--
5N 4W12BD 1	79-06-20	--	--	10	--	--	--	--
5N 4W12BD 1	79-08-29	--	--	--	--	--	--	--
7N 3W36DB 1	79-06-20	--	--	80	--	--	--	--
8N 1W20DB 2	79-06-20	--	--	0	--	--	--	--
				FRANKLIN				
4N 13W24AD 1	79-07-26	--	--	--	--	--	--	--
4N 14W 2DD 1	79-07-25	--	--	--	--	--	--	--
				FRONTIER				
5N 25W12DDDD1	79-09-12	--	--	--	--	--	--	--
5N 28W22CC 1	79-05-16	--	--	--	--	--	--	--
	79-09-04	--	--	--	--	--	--	--
5N 29W 6DB 1	79-09-11	--	--	--	--	--	--	--
5N 29W35DBC 1	79-08-31	--	--	--	--	--	--	--
6N 24W10CDD 1	79-09-12	--	--	--	--	--	--	--
6N 24W27D 1	79-09-05	--	--	--	--	--	--	--
6N 25W20CD 1	79-09-12	--	--	--	--	--	--	--
6N 26W21C 1	79-09-04	--	--	--	--	--	--	--
6N 27W27CB 1	79-09-13	--	--	--	--	--	--	--
6N 29W 8BB 1	79-05-16	--	--	--	--	--	--	--
	79-09-11	--	--	--	--	--	--	--
6N 29W26B 1	79-09-04	--	--	--	--	--	--	--

LOCAL IDENT-I-FIER	DATE OF SAMPLE	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	STRON-TIUM, DIS-SOLVED (UG/L AS SR) (01080)	VANA-DIUM, DIS-SOLVED (UG/L AS V) (01085)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
CHERRY					
33N 40W35BA 1	79-07-26	--	--	--	0
34N 27W 6A 1	79-06-27	--	--	--	6
34N 31W11DA 1	79-06-27	--	--	--	8
34N 33W 7AC 1	79-06-27	--	--	--	4
34N 37W20AA 1	79-06-27	--	--	--	<3
CLAY					
5N 5W13CA 1	79-08-29	--	--	--	--
5N 6W26CA 1	79-08-29	--	--	--	--
5N 7W 3CB 1	79-08-28	--	--	--	--
5N 7W32DB 1	79-08-28	--	--	--	--
6N 7W 1AA 1	79-08-29	--	--	--	--
6N 8W 8CB 1	79-08-28	--	--	--	--
6N 8W 8CB 3	79-06-20	--	--	--	--
7N 5W 2AA 1	79-06-20	--	--	--	--
8N 7W27DC 1	79-06-20	--	--	--	--
DAWES					
29N 48W 9DA 1	79-08-30	--	--	--	20
29N 49W21BC 1	79-08-30	--	--	--	6
29N 52W25DA 1	79-08-30	--	--	--	50
30N 48W16CB 1	79-08-30	--	--	--	4
FILLMORE					
5N 1W 8BA 1	79-08-29	--	--	--	--
5N 2W 7DB 1	79-08-29	--	--	--	--
5N 3W34BB 1	79-08-29	--	--	--	--
5N 4W12BD 1	79-06-20	--	--	--	--
5N 4W12BD 1	79-08-29	--	--	--	--
7N 3W36DB 1	79-06-20	--	--	--	--
8N 1W20DB 2	79-06-20	--	--	--	--
FRANKLIN					
4N 13W24AD 1	79-07-26	--	--	--	--
4N 14W 20D 1	79-07-25	--	--	--	--
FRONTIER					
5N 25W12DDDD1	79-09-12	--	--	--	--
5N 28W22CC 1	79-05-16	--	--	--	--
	79-09-04	--	--	--	--
5N 29W 6DB 1	79-09-11	--	--	--	--
5N 29W35DBC 1	79-08-31	--	--	--	--
6N 24W10CDD 1	79-09-12	--	--	--	--
6N 24W27D 1	79-09-05	--	--	--	--
6N 25W20CD 1	79-09-12	--	--	--	--
6N 26W21C 1	79-09-04	--	--	--	--
6N 27W27CB 1	79-09-13	--	--	--	--
6N 29W 8BB 1	79-05-16	--	--	--	--
	79-09-11	--	--	--	--
6N 29W26B 1	79-09-04	--	--	--	--

LOCAL IDENT-I-FIER	LAT-I-TUDE	LONG-I-TUDE	SEQ. NO.	GEO-LOGIC UNIT	DATE OF SAMPLE	TIME	DEPTH OF WELL, TOTAL (FFET) (72008)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)
				FRONTIER						
6N 30W16DBC 1	40 29 03	100 43 46	01	--	79-09-03	--	--	405	7.6	--
7N 24W15BCD 1	40 34 36	100 02 00	01	--	79-09-04	--	--	508	7.5	14.0
7N 25W12C 1	40 35 11	100 06 33	01	--	79-09-05	--	--	534	7.4	14.0
7N 26W11BAB 1	40 35 46	100 14 27	01	--	79-09-04	--	--	484	7.1	14.5
7N 27W19CD 1	40 33 19	100 25 53	01	121OGLL	79-09-13	--	--	493	7.6	15.0
7N 28W 3B 1	40 36 28	100 29 28	01	--	79-09-05	--	--	430	7.6	15.5
7N 28W28DB 1	40 32 38	100 30 11	01	121OGLL	79-09-13	--	--	432	7.6	15.5
8N 24W 1CB 1	40 41 24	099 59 46	01	121OGLL	79-07-27	--	--	457	7.8	--
				121OGLL	79-09-13	--	--	740	7.4	15.0
8N 25W12BB 1	40 40 58	100 06 42	01	--	79-09-04	--	--	467	7.3	16.0
8N 26W22B 1	40 39 06	100 15 40	01	--	79-09-05	--	--	428	7.6	16.5
8N 27W 3DBD 1	40 41 21	100 22 06	01	--	79-09-04	--	--	424	7.6	16.0
8N 27W31BC 1	40 37 15	100 26 10	01	121OGLL	79-07-27	--	--	448	7.8	--
				121OGLL	79-09-11	--	--	411	7.3	15.5
8N 28W36CBD 1	40 36 58	100 27 15	01	--	79-09-04	--	--	444	7.4	14.5
8N 30W 5BDD 1	40 41 34	100 45 02	01	--	79-08-31	--	--	367	7.7	15.0
8N 30W35DB 1	40 37 01	100 41 26	01	--	79-09-04	--	--	395	7.5	15.5
				GARDEN						
19N 44W34BC 1	41 34 38	102 23 01	01	121OGLL	79-08-07	0850	370	132	7.5	15.5
20N 42W22DB 1	41 44 24	102 08 42	01	121OGLL	79-08-08	0940	190	164	7.7	14.5
20N 46W27DD 1	41 40 18	102 36 11	01	121OGLL	79-08-07	1655	--	159	7.5	14.5
21N 42W34CD 1	41 44 39	102 10 11	01	121OGLL	79-08-08	1105	240	184	7.5	15.0
21N 44W19BD 1	41 46 48	102 28 09	01	121OGLL	79-08-07	1050	130	484	7.6	14.0
21N 45W32DB 1	41 44 46	102 33 55	01	121OGLL	79-08-07	1610	150	228	7.9	14.0
23N 42W35BC 1	41 55 43	102 09 35	01	121OGLL	79-08-08	1305	--	478	7.1	14.5
23N 43W18BA 1	41 58 33	102 20 51	01	121OGLL	79-08-09	1010	301	186	7.6	15.0
23N 45W17DC 1	41 57 48	102 33 55	01	121OGLL	79-08-07	1505	301	181	7.8	16.0
				HALL						
10N 9W 1BCD 1	40 51 59	098 17 53	01	112SDGV	79-05-02	--	134	848	7.5	12.0
10N 9W 1CAC 1	40 51 43	098 17 41	01	112SDGV	79-05-02	--	134	870	7.6	12.0
10N 9W 2CDD 1	40 51 28	098 18 38	01	112SDGV	79-05-02	--	134	858	7.5	12.0
10N 9W 2DDC 1	40 51 29	098 18 22	01	112SDGV	79-05-02	--	131	830	7.4	12.0
10N 9W11BD 1	40 51 03	098 18 42	01	112SDGV	79-05-02	--	151	670	7.2	11.5
11N 9W 9AAC 1	40 56 35	098 20 37	01	112SDGV	79-05-02	--	101	460	7.0	13.0
11N 9W27BBB 1	40 54 37	098 20 22	01	112SDGV	79-05-02	--	113	582	7.3	13.0
11N 9W29ABA 1	40 54 02	098 21 17	01	112SDGV	79-05-02	--	80	374	6.9	13.0
11N 9W32BAA 1	40 53 12	098 22 07	01	112SDGV	79-05-02	--	83	696	7.2	12.5
11N 10W13CAC 1	40 55 14	098 23 32	01	112SDGV	79-05-31	--	104	458	7.2	12.5
				HAMILTON						
9N 7W 6DAD 2	40 46 33	098 09 12	02	112SDGV	79-06-19	1750	190	626	7.2	14.0
10N 6W 4CB 1	40 51 47	098 00 45	01	112SDGV	79-06-19	1700	248	328	7.5	14.0
11N 7W 3CC 7	40 56 45	098 06 42	07	112SDGV	78-10-06	--	37	--	--	--
11N 7W 3CCA 1	40 56 53	098 06 34	01	112SDGV	79-04-05	1113	190	1120	--	--

CHEMICAL ANALYSES OF GROUND WATER IN NEBRASKA

LOCAL IDENT-I-FIER	DATE OF SAMPLE	COLOR (PLAT-INUM-COBALT UNITS) (00080)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE (MG/L AS HCO3) (00440)
				FRONTIER						
6N 30W16DBC 1	79-09-03	--	200	8	53	16	16	.5	12	--
7N 24W15BCD 1	79-09-04	--	250	0	67	20	9.6	.3	11	--
7N 25W12C 1	79-09-05	--	270	9	73	21	8.5	.2	12	--
7N 26W11BAB 1	79-09-04	--	240	6	65	18	12	.3	12	--
7N 27W19CD 1	79-09-13	--	220	23	63	16	12	.4	12	--
7N 28W 3B 1	79-09-05	--	200	12	56	15	15	.5	12	--
7N 28W28DB 1	79-09-13	--	200	11	54	16	10	.3	12	--
8N 24W 1CB 1	79-07-27	--	200	0	51	17	19	.6	12	--
	79-09-13	--	270	66	77	18	49	1.3	13	--
8N 25W12BB 1	79-09-04	--	250	18	73	16	7.1	.2	9.8	--
8N 26W22B 1	79-09-05	--	200	0	54	15	9.8	.3	11	--
8N 27W 3DBD 1	79-09-04	--	200	0	55	16	8.6	.3	11	--
8N 27W31BC 1	79-07-27	--	200	0	53	17	19	.6	12	--
	79-09-11	--	190	3	54	14	8.9	.3	11	--
8N 28W36CBD 1	79-09-04	--	220	5	63	14	8.6	.3	10	--
8N 30W 5BDD 1	79-08-31	--	160	2	45	12	10	.3	10	--
8N 30W35DB 1	79-09-04	--	190	17	50	15	10	.3	12	--
				GARDEN						
19N 44W34BC 1	79-08-07	--	43	0	14	2.0	4.8	.3	4.6	--
20N 42W22DB 1	79-08-08	--	58	2	19	2.5	5.0	.3	6.5	--
20N 46W27DD 1	79-08-07	--	57	0	18	2.9	5.2	.3	5.2	--
21N 42W34CD 1	79-08-08	--	55	0	17	3.1	6.1	.4	5.7	--
21N 44W19BD 1	79-08-07	--	130	0	28	14	42	1.6	36	--
21N 45W32DB 1	79-08-07	--	78	0	24	4.3	12	.6	7.1	--
23N 42W35BC 1	79-08-08	--	140	76	43	6.7	17	.6	38	--
23N 43W18BA 1	79-08-09	--	53	0	16	3.2	6.3	.4	4.8	--
23N 45W17DC 1	79-08-07	--	66	0	20	4.0	5.0	.3	7.1	--
				HALL						
10N 9W 1BCD 1	79-05-02	--	--	--	--	--	--	--	--	--
10N 9W 1CAC 1	79-05-02	--	--	--	--	--	--	--	--	--
10N 9W 2CDD 1	79-05-02	--	--	--	--	--	--	--	--	--
10N 9W 2DDC 1	79-05-02	--	--	--	--	--	--	--	--	--
10N 9W11BD 1	79-05-02	--	--	--	--	--	--	--	--	--
11N 9W 9AAC 1	79-05-02	--	--	--	--	--	--	--	--	--
11N 9W27BBB 1	79-05-02	--	--	--	--	--	--	--	--	--
11N 9W29ABA 1	79-05-02	--	--	--	--	--	--	--	--	--
11N 9W32BAA 1	79-05-02	--	--	--	--	--	--	--	--	--
11N 10W13CAC 1	79-05-31	--	--	--	--	--	--	--	--	--
				HAMILTON						
9N 7W 6DAD 2	79-06-19	--	260	62	82	14	31	.8	5.6	--
10N 6W 4CB 1	79-06-19	--	140	4	46	7.0	20	.7	4.7	--
11N 7W 3CC 7	78-10-06	--	1600	1200	480	100	120	1.3	--	--
11N 7W 3CCA 1	79-04-05	--	500	310	160	25	40	.8	8.9	--

LOCAL IDENT-I-FIER	DATE OF SAMPLE	CAR-BONATE (MG/L AS CO3) (00445)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)
				FRONTIER						
6N 30W16DBC 1	79-09-03	--	190	23	4.9	.7	65	--	320	.44
7N 24W15BCD 1	79-09-04	--	250	22	2.1	.4	60	--	354	.48
7N 25W12C 1	79-09-05	--	260	19	3.3	.5	61	--	371	.50
7N 26W11BAB 1	79-09-04	--	230	21	2.8	.5	65	--	351	.48
7N 27W19CD 1	79-09-13	--	200	27	12	.7	67	--	354	.48
7N 28W 3B 1	79-09-05	--	190	21	4.1	.6	65	--	316	.43
7N 28W28DB 1	79-09-13	--	190	21	4.6	.8	67	--	315	.43
8N 24W 1CB 1	79-07-27	--	210	21	4.2	.8	64	--	328	.45
	79-09-13	--	200	150	21	.4	62	--	519	.71
8N 25W12BB 1	79-09-04	--	230	20	1.5	.3	62	--	339	.46
8N 26W22B 1	79-09-05	--	200	19	2.1	.5	65	--	310	.42
8N 27W 3DAD 1	79-09-04	--	210	16	2.0	.5	62	--	311	.42
8N 27W31BC 1	79-07-27	--	210	22	4.2	.9	60	--	327	.44
	79-09-11	--	190	19	2.6	.6	70	--	307	.42
8N 28W36CBD 1	79-09-04	--	210	17	2.1	.5	61	--	314	.43
8N 30W 5BDD 1	79-08-31	--	160	14	1.6	.6	61	--	266	.36
8N 30W35DB 1	79-09-04	--	170	18	2.7	.7	61	--	288	.39
				GARDEN						
19N 44W34BC 1	79-08-07	--	49	4.1	.8	.4	54	123	124	.17
20N 42W22DB 1	79-08-08	--	56	4.5	2.1	.3	45	118	135	.16
20N 46W27DD 1	79-08-07	--	57	6.1	.9	.4	55	135	140	.18
21N 42W34CD 1	79-08-08	--	69	3.7	.7	.5	49	126	129	.16
21N 44W19BD 1	79-08-07	--	240	15	4.1	1.1	50	324	335	.44
21N 45W32DB 1	79-08-07	--	100	11	.9	.5	56	179	177	.24
23N 42W35BC 1	79-08-08	--	59	29	28	.2	49	342	357	.47
23N 43W18BA 1	79-08-09	--	66	5.3	.9	.6	56	126	134	.15
23N 45W17DC 1	79-08-07	--	77	7.6	1.1	.5	49	138	142	.19
				HALL						
10N 9W 1BCD 1	79-05-02	--	--	--	--	--	--	--	--	--
10N 9W 1CAC 1	79-05-02	--	--	--	--	--	--	--	--	--
10N 9W 2CDD 1	79-05-02	--	--	--	--	--	--	--	--	--
10N 9W 2DDC 1	79-05-02	--	--	--	--	--	--	--	--	--
10N 9W11BD 1	79-05-02	--	--	--	--	--	--	--	--	--
11N 9W 9AAC 1	79-05-02	--	--	--	--	--	--	--	--	--
11N 9W27BBB 1	79-05-02	--	--	--	--	--	--	--	--	--
11N 9W29ABA 1	79-05-02	--	--	--	--	--	--	--	--	--
11N 9W32BAA 1	79-05-02	--	--	--	--	--	--	--	--	--
11N 10W13CAC 1	79-05-31	--	--	--	--	--	--	--	--	--
				HAMILTON						
9N 7W 6DAD 2	79-06-19	--	200	110	13	.4	28	--	408	.55
10N 6W 4CB 1	79-06-19	--	140	36	7.5	.5	25	--	232	.32
11N 7W 3CC 7	78-10-06	--	--	--	--	--	--	--	--	--
11N 7W 3CCA 1	79-04-05	--	190	250	18	.5	20	--	805	1.09

LOCAL IDENT-I-FIER	DATE OF SAMPLE	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P) (00666)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)
FRONTIER										
6N 30W16DBC 1	79-09-03	--	3.5	--	--	--	--	--	--	--
7N 24W15BCD 1	79-09-04	--	2.7	--	--	--	--	--	--	--
7N 25W12C 1	79-09-05	--	3.7	--	--	--	--	--	--	--
7N 26W11BAB 1	79-09-04	--	3.6	--	--	--	--	--	--	--
7N 27W19CD 1	79-09-13	--	5.5	--	--	--	--	--	--	--
7N 28W 3B 1	79-09-05	--	3.0	--	--	--	--	--	--	--
7N 28W28DB 1	79-09-13	--	3.5	--	--	--	--	--	--	--
8N 24W 1CB 1	79-07-27	--	2.9	--	--	--	--	--	--	--
	79-09-13	--	1.9	--	--	--	--	--	--	--
8N 25W12BB 1	79-09-04	--	2.4	--	--	--	--	--	--	--
8N 26W22B 1	79-09-05	--	3.1	--	--	--	--	--	--	--
8N 27W 3DBD 1	79-09-04	--	3.0	--	--	--	--	--	--	--
8N 27W31BC 1	79-07-27	--	2.9	--	--	--	--	--	--	--
	79-09-11	--	2.9	--	--	--	--	--	--	--
8N 28W36CBD 1	79-09-04	--	2.6	--	--	--	--	--	--	--
8N 30W 5BDD 1	79-08-31	--	3.5	--	--	--	--	--	--	--
8N 30W35DB 1	79-09-04	--	3.7	--	--	--	--	--	--	--
GARDEN										
19N 44W34BC 1	79-08-07	--	2.1	--	--	--	--	--	--	--
20N 42W22DB 1	79-08-08	--	3.8	--	--	--	--	--	--	--
20N 46W27DD 1	79-08-07	--	2.7	--	--	--	--	--	--	--
21N 42W34CD 1	79-08-08	--	.25	--	--	--	--	--	--	--
21N 44W19BD 1	79-08-07	--	.05	--	--	--	--	--	--	--
21N 45W32DB 1	79-08-07	--	.13	--	--	--	--	--	--	--
23N 42W35BC 1	79-08-08	--	25	--	--	--	--	--	--	--
23N 43W18BA 1	79-08-09	--	.21	--	--	--	--	--	--	--
23N 45W17DC 1	79-08-07	--	.29	--	--	--	--	--	--	--
HALL										
10N 9W 1BCD 1	79-05-02	--	--	--	--	--	--	--	--	--
10N 9W 1CAC 1	79-05-02	--	--	--	--	--	--	--	--	--
10N 9W 2CDD 1	79-05-02	--	--	--	--	--	--	--	--	--
10N 9W 2DDC 1	79-05-02	--	--	--	--	--	--	--	--	--
10N 9W11BD 1	79-05-02	--	--	--	--	--	--	--	--	--
11N 9W 9AAC 1	79-05-02	--	--	--	--	--	--	--	--	--
11N 9W27BBB 1	79-05-02	--	--	--	--	--	--	--	--	--
11N 9W29ABA 1	79-05-02	--	--	--	--	--	--	--	--	--
11N 9W32BAA 1	79-05-02	--	--	--	--	--	--	--	--	--
11N 10W13CAC 1	79-05-31	--	--	--	--	--	--	--	--	--
HAMILTON										
9N 7W 6DAD 2	79-06-19	--	.69	--	--	--	--	--	.24	--
10N 6W 4CB 1	79-06-19	--	.26	--	--	--	--	--	.22	--
11N 7W 3CC 7	78-10-06	--	3.5	--	--	--	--	--	.52	--
11N 7W 3CCA 1	79-04-05	--	38	--	--	--	--	--	--	--

LOCAL IDENT- I- FIER	DATE OF SAMPLE	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)
					FRONTIER					
6N 30W16DBC 1	79-09-03	--	--	--	90	--	--	--	--	--
7N 24W159CD 1	79-09-04	--	--	--	70	--	--	--	--	--
7N 25W12C 1	79-09-05	--	--	--	60	--	--	--	--	--
7N 26W11BAB 1	79-09-04	--	--	--	70	--	--	--	--	--
7N 27W19CD 1	79-09-13	--	--	--	80	--	--	--	--	--
7N 28W 3B 1	79-09-05	--	--	--	80	--	--	--	--	--
7N 28W28DB 1	79-09-13	--	--	--	70	--	--	--	--	--
8N 24W 1CB 1	79-07-27	--	--	--	80	--	--	--	--	--
	79-09-13	--	--	--	100	--	--	--	--	--
8N 25W12BB 1	79-09-04	--	--	--	50	--	--	--	--	--
8N 26W22B 1	79-09-05	--	--	--	50	--	--	--	--	--
8N 27W 3DBD 1	79-09-04	--	--	--	70	--	--	--	--	--
8N 27W31BC 1	79-07-27	--	--	--	90	--	--	--	--	--
	79-09-11	--	--	--	60	--	--	--	--	--
8N 28W36CBD 1	79-09-04	--	--	--	70	--	--	--	--	--
8N 30W 5BDD 1	79-08-31	--	--	--	50	--	--	--	--	--
8N 30W35DB 1	79-09-04	--	--	--	60	--	--	--	--	--
					GARDEN					
19N 44W34BC 1	79-08-07	6	--	--	20	0	10	--	5	0
20N 42W22DB 1	79-08-08	10	--	--	10	0	0	--	2	0
20N 46W27DD 1	79-08-07	5	--	--	20	0	10	--	0	0
21N 42W34CD 1	79-08-08	10	--	--	20	0	0	--	1	40
21N 44W19BD 1	79-08-07	3	--	--	60	0	0	--	1	530
21N 45W32DB 1	79-08-07	3	--	--	40	0	0	--	0	70
23N 42W35BC 1	79-08-08	4	--	--	40	0	0	--	6	10
23N 43W18BA 1	79-08-09	9	--	--	30	0	0	--	1	260
23N 45W17DC 1	79-08-07	5	--	--	20	0	0	--	1	20
					HALL					
10N 9W 1BCD 1	79-05-02	--	--	--	--	0	--	--	--	--
10N 9W 1CAC 1	79-05-02	--	--	--	--	0	--	--	--	--
10N 9W 2CDD 1	79-05-02	--	--	--	--	0	--	--	--	--
10N 9W 2DDC 1	79-05-02	--	--	--	--	0	--	--	--	--
10N 9W11BD 1	79-05-02	--	--	--	--	0	--	--	--	--
11N 9W 9AAC 1	79-05-02	--	--	--	--	0	--	--	--	--
11N 9W27BBB 1	79-05-02	--	--	--	--	0	--	--	--	--
11N 9W29ABA 1	79-05-02	--	--	--	--	0	--	--	--	--
11N 9W32BAA 1	79-05-02	--	--	--	--	0	--	--	--	--
11N 10W13CAC 1	79-05-31	--	--	--	--	3	--	--	--	--
					HAMILTON					
9N 7W 6DAD 2	79-06-19	--	--	--	50	--	--	--	--	30
10N 6W 4CB 1	79-06-19	--	--	--	70	--	--	--	--	10
11N 7W 3CC 7	78-10-06	--	--	--	--	--	--	--	--	--
11N 7W 3CCA 1	79-04-05	--	--	--	50	--	--	--	--	0

LOCAL IDENT-I-FIER	DATE OF SAMPLE	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	LITHIUM DIS-SOLVED (UG/L AS LI) (01130)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)
FRONTIER								
6N 30W16DBC 1	79-09-03	--	--	--	--	--	--	--
7N 24W15BCD 1	79-09-04	--	--	--	--	--	--	--
7N 25W12C 1	79-09-05	--	--	--	--	--	--	--
7N 26W11BAB 1	79-09-04	--	--	--	--	--	--	--
7N 27W19CD 1	79-09-13	--	--	--	--	--	--	--
7N 28W 3B 1	79-09-05	--	--	--	--	--	--	--
7N 28W28DB 1	79-09-13	--	--	--	--	--	--	--
8N 24W 1CB 1	79-07-27	--	--	--	--	--	--	--
	79-09-13	--	--	--	--	--	--	--
8N 25W12BB 1	79-09-04	--	--	--	--	--	--	--
8N 26W22B 1	79-09-05	--	--	--	--	--	--	--
8N 27W 30BD 1	79-09-04	--	--	--	--	--	--	--
8N 27W31BC 1	79-07-27	--	--	--	--	--	--	--
	79-09-11	--	--	--	--	--	--	--
8N 28W36CBD 1	79-09-04	--	--	--	--	--	--	--
8N 30W 5BDD 1	79-08-31	--	--	--	--	--	--	--
8N 30W35DB 1	79-09-04	--	--	--	--	--	--	--
GARDEN								
19N 44W34BC 1	79-08-07	0	--	2	.2	--	--	1
20N 42W22DA 1	79-08-08	0	--	1	.1	--	--	1
20N 46W27DD 1	79-08-07	2	--	2	.1	--	--	1
21N 42W34CD 1	79-08-08	0	--	50	.2	--	--	0
21N 44W19BD 1	79-08-07	0	--	160	1.3	--	--	0
21N 45W32DB 1	79-08-07	2	--	80	.2	--	--	0
23N 42W35BC 1	79-08-08	5	--	20	.4	--	--	1
23N 43W18BA 1	79-08-09	0	--	160	.2	--	--	0
23N 45W17DC 1	79-08-07	2	--	160	.3	--	--	0
HALL								
10N 9W 18CD 1	79-05-02	0	--	--	--	--	--	--
10N 9W 1CAC 1	79-05-02	0	--	--	--	--	--	--
10N 9W 2CDD 1	79-05-02	0	--	--	--	--	--	--
10N 9W 2DDC 1	79-05-02	0	--	--	--	--	--	--
10N 9W11BD 1	79-05-02	0	--	--	--	--	--	--
11N 9W 9AAC 1	79-05-02	0	--	--	--	--	--	--
11N 9W27BBB 1	79-05-02	0	--	--	--	--	--	--
11N 9W29ABA 1	79-05-02	0	--	--	--	--	--	--
11N 9W32BAA 1	79-05-02	0	--	--	--	--	--	--
11N 10W13CAC 1	79-05-31	0	--	--	--	--	--	--
HAMILTON								
9N 7W 6DAD 2	79-06-19	--	--	970	--	--	--	--
10N 6W 4CB 1	79-06-19	--	--	0	--	--	--	--
11N 7W 3CC 7	78-10-06	--	--	--	--	--	--	--
11N 7W 3CCA 1	79-04-05	--	--	3	--	--	--	--

LOCAL IDENT- I- FIER	DATE OF SAMPLE	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)
FRONTIER					
6N 30W16DBC 1	79-09-03	--	--	--	--
7N 24W15BCD 1	79-09-04	--	--	--	--
7N 25W12C 1	79-09-05	--	--	--	--
7N 26W11BAB 1	79-09-04	--	--	--	--
7N 27W19CD 1	79-09-13	--	--	--	--
7N 28W 3B 1	79-09-05	--	--	--	--
7N 28W28DA 1	79-09-13	--	--	--	--
8N 24W 1CB 1	79-07-27	--	--	--	--
	79-09-13	--	--	--	--
8N 25W12BB 1	79-09-04	--	--	--	--
8N 26W22B 1	79-09-05	--	--	--	--
8N 27W 3DBD 1	79-09-04	--	--	--	--
8N 27W31BC 1	79-07-27	--	--	--	--
	79-09-11	--	--	--	--
8N 28W36CBD 1	79-09-04	--	--	--	--
8N 30W 5BDD 1	79-08-31	--	--	--	--
8N 30W35DB 1	79-09-04	--	--	--	--
GARDEN					
19N 44W34BC 1	79-08-07	--	--	--	5
20N 42W22DB 1	79-08-08	--	--	--	10
20N 46W27DD 1	79-08-07	--	--	--	<3
21N 42W34CD 1	79-08-08	--	--	--	10
21N 44W19BD 1	79-08-07	--	--	--	<3
21N 45W32DB 1	79-08-07	--	--	--	<3
23N 42W35BC 1	79-08-08	--	--	--	20
23N 43W1BBA 1	79-08-09	--	--	--	30
23N 45W17DC 1	79-08-07	--	--	--	<3
HALL					
10N 9W 1BCD 1	79-05-02	--	--	--	--
10N 9W 1CAC 1	79-05-02	--	--	--	--
10N 9W 2CDD 1	79-05-02	--	--	--	--
10N 9W 2DDC 1	79-05-02	--	--	--	--
10N 9W11BD 1	79-05-02	--	--	--	--
11N 9W 9AAC 1	79-05-02	--	--	--	--
11N 9W27BAB 1	79-05-02	--	--	--	--
11N 9W29ABA 1	79-05-02	--	--	--	--
11N 9W32BAA 1	79-05-02	--	--	--	--
11N 10W13CAC 1	79-05-31	--	--	--	--
HAMILTON					
9N 7W 6DAD 2	79-06-19	--	--	--	--
10N 6W 4CB 1	79-06-19	--	--	--	--
11N 7W 3CC 7	78-10-06	--	--	--	--
11N 7W 3CCA 1	79-04-05	--	--	--	--

LOCAL IDENT-I-FIER	LAT-I-TUDE	LONG-I-TUDE	SEQ. NO.	GEO-LOGIC UNIT	DATE OF SAMPLE	TIME	DEPTH OF WELL, TOTAL (FEET) (72008)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)
HAMILTON										
11N 7W 3CCC 1	40 56 42	098 06 39	01	112SDGV	79-04-05	1205	180	850	--	--
11N 7W 4DD 1	40 56 47	098 06 48	01	112SDGV	79-04-05	1043	--	1950	--	--
11N 7W 6CC 1	40 56 43	098 09 58	01	112SDGV	79-04-05	1037	213	840	--	--
11N 7W10BAA 1	40 56 40	098 06 12	01	112SDGV	79-04-05	1126	--	1460	--	--
HAYES										
5N 31W19AD 1	40 23 11	100 52 44	01	121OGLL	79-09-13	--	380	409	7.2	16.5
5N 33W23BAA 1	40 23 29	101 02 05	01	--	79-08-31	--	--	387	8.0	16.0
5N 34W21ADA 1	40 23 23	101 10 26	01	--	79-08-31	--	--	477	7.8	13.0
6N 31W20AD 1	40 28 27	100 51 37	01	121OGLL	79-09-11	--	370	400	7.4	16.5
6N 31W28BA 1	40 27 58	100 50 58	01	121OGLL	79-05-18	--	302	--	--	15.5
				121OGLL	79-08-31	--	302	417	7.3	15.0
6N 32W14CB 1	40 29 08	100 55 52	01	121OGLL	79-09-12	--	200	395	7.3	14.0
6N 33W14CA 1	40 29 07	101 02 09	01	--	79-08-31	--	--	369	7.7	15.0
6N 34W 2DD 1	40 30 48	100 08 27	01	121OGLL	79-05-18	--	400	--	--	16.0
				121OGLL	79-08-30	--	400	375	7.7	17.0
6N 35W 1DDD 1	40 30 37	101 13 58	01	--	79-09-04	--	--	354	7.7	15.0
6N 35W33BD 1	40 26 54	101 17 59	01	121OGLL	79-09-12	--	--	359	7.4	17.5
7N 31W17BBD 1	40 34 46	100 52 23	01	--	79-08-31	--	--	415	7.7	17.0
7N 32W14CD 1	40 34 10	100 55 34	01	121OGLL	79-09-11	--	328	380	7.7	16.5
7N 33W20BAC 1	40 33 53	101 05 34	01	--	79-08-31	--	--	398	7.7	17.0
7N 35W20DCD 1	40 33 20	101 18 45	01	--	79-09-04	--	--	354	7.8	14.0
8N 31W11CC 1	40 40 18	100 49 07	01	--	79-08-31	--	--	373	7.8	16.0
8N 31W23CCA 1	40 38 36	100 49 03	01	--	79-09-05	--	--	354	7.8	15.0
8N 32W26ACA 1	40 38 06	100 54 53	01	--	79-07-27	--	--	369	7.8	--
				--	79-09-04	--	--	--	--	--
8N 33W23CCA 1	40 38 35	101 02 22	01	--	79-09-04	--	--	369	7.7	17.0
8N 35W 1AB 1	40 41 48	101 14 18	01	--	79-09-04	--	--	348	7.8	16.0
8N 35W33ADC 1	40 37 10	101 17 34	01	121OGLL	79-05-18	--	390	--	--	15.0
				121OGLL	79-09-04	--	390	363	7.7	14.0
HITCHCOCK										
2N 34W18AA 1	40 08 42	101 11 41	01	--	79-08-30	--	--	1190	7.6	12.0
3N 31W 8DC 1	40 14 07	100 50 24	01	121OGLL	79-09-13	--	105	770	7.3	16.0
3N 32W 5CC 1	40 14 59	100 57 50	01	121OGLL	79-09-13	--	200	408	7.3	16.0
3N 33W22AB 1	40 13 02	101 01 46	01	121OGLL	79-09-12	--	226	450	7.3	--
3N 34W 2BD 1	40 15 25	101 07 43	01	121OGLL	79-09-12	--	285	389	7.5	17.5
3N 35W28AAA 1	40 12 13	101 15 55	01	--	79-08-30	--	--	408	7.8	15.0
4N 31W22C 1	40 17 42	100 48 35	01	121OGLL	79-09-12	--	235	680	7.1	15.5
4N 31W25BC 1	40 17 12	100 46 38	01	121OGLL	79-05-18	--	190	--	--	15.0
				121OGLL	79-09-04	--	190	560	7.6	13.0
4N 31W25BD 1	40 17 09	100 46 11	01	121OGLL	79-09-12	--	245	581	7.3	15.5
4N 32W12DB 1	40 19 32	100 52 43	01	121OGLL	79-09-12	--	290	448	7.4	16.0
4N 33W26BB 1	40 17 21	101 01 12	01	--	79-08-31	--	--	637	7.8	14.0

LOCAL IDENT- I- FIER	DATE OF SAMPLE	COLOR (PLAT- INUM- COBALT UNITS) (00080)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L CACO3) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L AS HCO3) (00440)
				HAMILTON						
11N 7W 3CCC 1	79-04-05	--	280	97	88	14	72	1.9	7.0	--
11N 7W 4DD 1	79-04-05	--	850	640	280	36	83	1.2	15	--
11N 7W 6CC 1	79-04-05	--	280	95	86	17	72	1.9	5.4	--
11N 7W10BAA 1	79-04-05	--	730	500	230	38	46	.7	16	--
				HAYES						
5N 31W19AD 1	79-09-13	--	170	0	43	15	17	.6	12	--
5N 33W23BAA 1	79-08-31	--	170	2	44	15	15	.5	11	--
5N 34W21ADA 1	79-08-31	--	200	10	52	17	27	.8	11	--
6N 31W20AD 1	79-09-11	--	160	0	41	14	14	.5	13	--
6N 31W28BA 1	79-05-18	--	180	0	46	17	17	.5	13	--
	79-08-31	--	180	0	47	16	18	.6	14	--
6N 32W14CB 1	79-09-12	--	170	0	42	15	10	.3	12	--
6N 33W14CA 1	79-08-31	--	180	0	46	15	15	.5	11	--
6N 34W 2DD 1	79-05-18	--	160	8	42	13	14	.5	12	--
	79-08-30	--	160	3	44	13	12	.4	11	--
6N 35W 1DDD 1	79-09-04	--	160	3	42	14	13	.4	11	--
6N 35W33BD 1	79-09-12	--	140	0	37	12	14	.5	11	--
7N 31W17BBD 1	79-08-31	--	180	0	47	14	17	.5	10	--
7N 32W14CD 1	79-09-11	--	160	0	42	14	14	.5	12	--
7N 33W20BAC 1	79-08-31	--	170	4	45	15	12	.4	11	--
7N 35W20DCD 1	79-09-04	--	160	3	44	13	13	.4	10	--
8N 31W11CC 1	79-08-31	--	160	0	46	11	11	.4	10	--
8N 31W23CCA 1	79-09-05	--	170	14	50	12	11	.4	10	--
8N 32W26ACA 1	79-07-27	--	160	0	40	14	14	.5	8.9	--
	79-09-04	--	160	0	46	11	16	.6	10	--
8N 33W23CCA 1	79-09-04	--	160	0	42	14	17	.6	11	--
8N 35W 1AB 1	79-09-04	--	150	0	42	11	19	.7	9.6	--
8N 35W33ADC 1	79-05-18	--	150	3	40	13	12	.4	11	--
	79-09-04	--	160	3	44	13	12	.4	10	--
				HITCHCOCK						
2N 34W18AA 1	79-08-30	--	540	210	150	40	72	1.4	22	--
3N 31W 8DC 1	79-09-13	--	320	0	87	24	48	1.2	16	--
3N 32W 5CC 1	79-09-13	--	160	0	39	15	20	.7	12	--
3N 33W22AB 1	79-09-12	--	180	0	44	16	20	.7	13	--
3N 34W 2BD 1	79-09-12	--	160	0	42	14	17	.6	12	--
3N 35W28AAA 1	79-08-30	--	180	0	47	14	21	.7	10	--
4N 31W22C 1	79-09-12	--	320	0	83	27	20	.5	14	--
4N 31W25BC 1	79-05-18	--	350	20	89	31	26	.6	15	--
	79-09-04	--	260	0	67	22	21	.6	12	--
4N 31W25BD 1	79-09-12	--	260	18	67	22	19	.5	12	--
4N 32W12DB 1	79-09-12	--	190	0	48	18	17	.5	12	--
4N 33W26BB 1	79-08-31	--	250	120	66	21	32	.9	13	--

LOCAL IDENT- I- FIER	DATE OF SAMPLE	CAR- BONATE (MG/L AS CO3) (00445)	ALKA- LINITY (MG/L AS CACO3) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)
				HAMILTON						
11N 7W 3CCC 1	79-04-05	--	180	230	25	.7	18	--	572	.78
11N 7W 4DD 1	79-04-05	--	210	480	28	.4	23	--	1480	2.01
11N 7W 6CC 1	79-04-05	--	190	210	24	.5	20	--	556	.76
11N 7W10BAA 1	79-04-05	--	230	480	15	.4	27	--	1130	1.54
				HAYES						
5N 31W19AD 1	79-09-13	--	190	21	3.5	1.1	69	--	307	.42
5N 33W23BAA 1	79-08-31	--	170	19	3.8	1.0	62	--	285	.39
5N 34W21ADA 1	79-08-31	--	190	47	5.8	.9	60	--	349	.47
6N 31W20AD 1	79-09-11	--	180	21	3.4	1.0	66	--	291	.40
6N 31W28BA 1	79-05-18	--	190	20	4.1	1.0	77	--	322	.44
	79-08-31	--	220	11	3.2	1.0	58	--	303	.41
6N 32W14CB 1	79-09-12	--	180	20	3.1	1.0	65	--	287	.39
6N 33W14CA 1	79-08-31	--	180	19	3.1	.9	64	--	292	.40
6N 34W 2DD 1	79-05-18	--	150	14	5.0	.8	70	--	273	.37
	79-08-30	--	160	28	4.9	.8	55	--	271	.37
6N 35W 1DDD 1	79-09-04	--	160	17	3.3	.8	53	--	259	.35
6N 35W33BD 1	79-09-12	--	150	21	4.7	1.1	64	--	267	.36
7N 31W17BBD 1	79-08-31	--	180	20	5.9	.6	57	--	290	.39
7N 32W14CD 1	79-09-11	--	170	20	4.0	.9	67	--	289	.39
7N 33W20BAC 1	79-08-31	--	170	18	3.1	.7	61	--	282	.38
7N 35W20DCD 1	79-09-04	--	160	16	2.3	.8	58	--	265	.36
8N 31W11CC 1	79-08-31	--	160	16	1.6	.6	63	--	272	.37
8N 31W23CCA 1	79-09-05	--	160	17	2.3	.6	60	--	273	.37
8N 32W26ACA 1	79-07-27	--	160	22	2.1	.8	56	--	262	.36
	79-09-04	--	170	21	5.4	.7	63	--	286	.39
8N 33W23CCA 1	79-09-04	--	170	19	3.4	.7	60	--	280	.38
8N 35W 1AB 1	79-09-04	--	160	18	3.7	.7	54	--	263	.36
8N 35W33ADC 1	79-05-18	--	150	15	9.8	.7	64	--	266	.36
	79-09-04	--	160	17	8.4	.7	61	--	273	.37
				HITCHCOCK						
2N 34W18AA 1	79-08-30	--	330	330	23	1.0	37	--	875	1.19
3N 31W 8DC 1	79-09-13	--	340	64	7.0	1.1	72	--	549	.75
3N 32W 5CC 1	79-09-13	--	180	26	3.9	1.2	66	--	299	.41
3N 33W22AB 1	79-09-12	--	190	27	5.0	1.1	64	--	315	.43
3N 34W 2BD 1	79-09-12	--	170	4.0	3.0	1.2	68	--	272	.37
3N 35W28AAA 1	79-08-30	--	180	25	3.2	1.1	61	--	301	.41
4N 31W22C 1	79-09-12	--	310	44	8.3	.7	65	--	476	.65
4N 31W25BC 1	79-05-18	--	330	38	9.1	.5	68	--	509	.69
	79-09-04	--	260	21	4.2	.8	56	--	378	.51
4N 31W25BD 1	79-09-12	--	240	43	9.1	.9	63	--	415	.56
4N 32W12DB 1	79-09-12	--	200	26	6.5	1.1	66	--	329	.45
4N 33W26BB 1	79-08-31	--	130	77	22	.8	63	--	462	.63

LOCAL IDENT-I-FIER	DATE OF SAMPLE	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P) (00666)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)
				HAMILTON						
11N 7W 3CCC 1	79-04-05	--	2.0	--	--	--	--	--	--	--
11N 7W 4DD 1	79-04-05	--	93	--	--	--	--	--	--	--
11N 7W 6CC 1	79-04-05	--	1.5	--	--	--	--	--	--	--
11N 7W10BAA 1	79-04-05	--	32	--	--	--	--	--	--	--
				HAYES						
5N 31W19AD 1	79-09-13	--	2.4	--	--	--	--	--	--	--
5N 33W23BAA 1	79-08-31	--	2.8	--	--	--	--	--	--	--
5N 34W21ADA 1	79-08-31	--	3.2	--	--	--	--	--	--	--
6N 31W20AD 1	79-09-11	--	2.2	--	--	--	--	--	--	--
6N 31W28BA 1	79-05-18	--	2.9	--	--	--	--	--	--	--
	79-08-31	--	.63	--	--	--	--	--	--	--
6N 32W14CB 1	79-09-12	--	2.3	--	--	--	--	--	--	--
6N 33W14CA 1	79-08-31	--	2.3	--	--	--	--	--	--	--
6N 34W 2DD 1	79-05-18	--	2.7	--	--	--	--	--	--	--
	79-08-30	--	2.3	--	--	--	--	--	--	--
6N 35W 1DDD 1	79-09-04	--	1.9	--	--	--	--	--	--	--
6N 35W33BD 1	79-09-12	--	2.8	--	--	--	--	--	--	--
7N 31W17BBD 1	79-08-31	--	2.4	--	--	--	--	--	--	--
7N 32W14CD 1	79-09-11	--	3.0	--	--	--	--	--	--	--
7N 33W20BAC 1	79-08-31	--	3.1	--	--	--	--	--	--	--
7N 35W20DCD 1	79-09-04	--	2.6	--	--	--	--	--	--	--
8N 31W11CC 1	79-08-31	--	3.7	--	--	--	--	--	--	--
8N 31W23CCA 1	79-09-05	--	3.1	--	--	--	--	--	--	--
8N 32W26ACA 1	79-07-27	--	1.9	--	--	--	--	--	--	--
	79-09-04	--	2.3	--	--	--	--	--	--	--
8N 33W23CCA 1	79-09-04	--	2.3	--	--	--	--	--	--	--
8N 35W 1AB 1	79-09-04	--	1.9	--	--	--	--	--	--	--
8N 35W33ADC 1	79-05-18	--	2.4	--	--	--	--	--	--	--
	79-09-04	--	2.4	--	--	--	--	--	--	--
				HITCHCOCK						
2N 34W1BAA 1	79-08-30	--	.40	--	--	--	--	--	--	--
3N 31W 8DC 1	79-09-13	--	5.8	--	--	--	--	--	--	--
3N 32W 5CC 1	79-09-13	--	1.8	--	--	--	--	--	--	--
3N 33W22AB 1	79-09-12	--	2.4	--	--	--	--	--	--	--
3N 34W 2BD 1	79-09-12	--	1.9	--	--	--	--	--	--	--
3N 35W2BAAA 1	79-08-30	--	2.3	--	--	--	--	--	--	--
4N 31W22C 1	79-09-12	--	6.3	--	--	--	--	--	--	--
4N 31W25BC 1	79-05-18	--	7.6	--	--	--	--	--	--	--
	79-09-04	--	3.9	--	--	--	--	--	--	--
4N 31W25BD 1	79-09-12	--	7.8	--	--	--	--	--	--	--
4N 32W12DB 1	79-09-12	--	3.2	--	--	--	--	--	--	--
4N 33W26BB 1	79-08-31	--	20	--	--	--	--	--	--	--

LOCAL IDENT- I- FIER	DATE OF SAMPLE	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)
				HAMILTON						
11N 7W 3CCC 1	79-04-05	--	--	--	100	--	--	--	--	<0
11N 7W 4DD 1	79-04-05	--	--	--	80	--	--	--	--	10
11N 7W 6CC 1	79-04-05	--	--	--	110	--	--	--	--	<0
11N 7W10BAA 1	79-04-05	--	--	--	70	--	--	--	--	<0
				HAYES						
5N 31W19AD 1	79-09-13	--	--	--	80	--	--	--	--	--
5N 33W23BAA 1	79-08-31	--	--	--	80	--	--	--	--	--
5N 34W21ADA 1	79-08-31	--	--	--	110	--	--	--	--	--
6N 31W20AD 1	79-09-11	--	--	--	90	--	--	--	--	--
6N 31W28BA 1	79-05-18	--	--	--	100	--	--	--	--	--
	79-08-31	--	--	--	80	--	--	--	--	--
6N 32W14CB 1	79-09-12	--	--	--	80	--	--	--	--	--
6N 33W14CA 1	79-08-31	--	--	--	70	--	--	--	--	--
6N 34W 2DD 1	79-05-18	--	--	--	70	--	--	--	--	--
	79-08-30	--	--	--	60	--	--	--	--	--
6N 35W 1DDD 1	79-09-04	--	--	--	70	--	--	--	--	--
6N 35W33BD 1	79-09-12	--	--	--	80	--	--	--	--	--
7N 31W17BBD 1	79-08-31	--	--	--	80	--	--	--	--	--
7N 32W14CD 1	79-09-11	--	--	--	80	--	--	--	--	--
7N 33W20BAC 1	79-08-31	--	--	--	70	--	--	--	--	--
7N 35W20DCD 1	79-09-04	--	--	--	60	--	--	--	--	--
8N 31W11CC 1	79-08-31	--	--	--	60	--	--	--	--	--
8N 31W23CCA 1	79-09-05	--	--	--	60	--	--	--	--	--
8N 32W26ACA 1	79-07-27	--	--	--	80	--	--	--	--	--
	79-09-04	--	--	--	70	--	--	--	--	--
8N 33W23CCA 1	79-09-04	--	--	--	80	--	--	--	--	--
8N 35W 1AB 1	79-09-04	--	--	--	80	--	--	--	--	--
8N 35W33ADC 1	79-05-18	--	--	--	60	--	--	--	--	--
	79-09-04	--	--	--	60	--	--	--	--	--
				HITCHCOCK						
2N 34W18AA 1	79-08-30	--	--	--	180	--	--	--	--	--
3N 31W 8DC 1	79-09-13	--	--	--	220	--	--	--	--	--
3N 32W 5CC 1	79-09-13	--	--	--	90	--	--	--	--	--
3N 33W22AB 1	79-09-12	--	--	--	90	--	--	--	--	--
3N 34W 2BD 1	79-09-12	--	--	--	80	--	--	--	--	--
3N 35W28AAA 1	79-08-30	--	--	--	90	--	--	--	--	--
4N 31W22C 1	79-09-12	--	--	--	100	--	--	--	--	--
4N 31W25BC 1	79-05-18	--	--	--	100	--	--	--	--	--
	79-09-04	--	--	--	90	--	--	--	--	--
4N 31W25BD 1	79-09-12	--	--	--	90	--	--	--	--	--
4N 32W12DB 1	79-09-12	--	--	--	90	--	--	--	--	--
4N 33W26BB 1	79-08-31	--	--	--	140	--	--	--	--	--

LOCAL IDENT- I- FIER	DATE OF SAMPLE	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)
			HAMILTON					
11N 7W 3CCC 1	79-04-05	--	--	<1	--	--	--	--
11N 7W 4DD 1	79-04-05	--	--	3	--	--	--	--
11N 7W 6CC 1	79-04-05	--	--	<1	--	--	--	--
11N 7W10BAA 1	79-04-05	--	--	<1	--	--	--	--
			HAYES					
5N 31W19AD 1	79-09-13	--	--	--	--	--	--	--
5N 33W23BAA 1	79-08-31	--	--	--	--	--	--	--
5N 34W21ADA 1	79-08-31	--	--	--	--	--	--	--
6N 31W20AD 1	79-09-11	--	--	--	--	--	--	--
6N 31W28BA 1	79-05-18	--	--	--	--	--	--	--
	79-08-31	--	--	--	--	--	--	--
6N 32W14CB 1	79-09-12	--	--	--	--	--	--	--
6N 33W14CA 1	79-08-31	--	--	--	--	--	--	--
6N 34W 2DD 1	79-05-18	--	--	--	--	--	--	--
	79-08-30	--	--	--	--	--	--	--
6N 35W 1DDD 1	79-09-04	--	--	--	--	--	--	--
6N 35W33BD 1	79-09-12	--	--	--	--	--	--	--
7N 31W17BBD 1	79-08-31	--	--	--	--	--	--	--
7N 32W14CD 1	79-09-11	--	--	--	--	--	--	--
7N 33W20BAC 1	79-08-31	--	--	--	--	--	--	--
7N 35W20DCD 1	79-09-04	--	--	--	--	--	--	--
8N 31W11CC 1	79-08-31	--	--	--	--	--	--	--
8N 31W23CCA 1	79-09-05	--	--	--	--	--	--	--
8N 32W26ACA 1	79-07-27	--	--	--	--	--	--	--
	79-09-04	--	--	--	--	--	--	--
8N 33W23CCA 1	79-09-04	--	--	--	--	--	--	--
8N 35W 1AB 1	79-09-04	--	--	--	--	--	--	--
8N 35W33ADC 1	79-05-18	--	--	--	--	--	--	--
	79-09-04	--	--	--	--	--	--	--
			HITCHCOCK					
2N 34W18AA 1	79-08-30	--	--	--	--	--	--	--
3N 31W 8DC 1	79-09-13	--	--	--	--	--	--	--
3N 32W 5CC 1	79-09-13	--	--	--	--	--	--	--
3N 33W22AB 1	79-09-12	--	--	--	--	--	--	--
3N 34W 2BD 1	79-09-12	--	--	--	--	--	--	--
3N 35W28AAA 1	79-08-30	--	--	--	--	--	--	--
4N 31W22C 1	79-09-12	--	--	--	--	--	--	--
4N 31W25BC 1	79-05-18	--	--	--	--	--	--	--
	79-09-04	--	--	--	--	--	--	--
4N 31W25BD 1	79-09-12	--	--	--	--	--	--	--
4N 32W12DB 1	79-09-12	--	--	--	--	--	--	--
4N 33W26BB 1	79-08-31	--	--	--	--	--	--	--

LOCAL IDENT-I-FIER	DATE OF SAMPLE	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	STRON-TIUM, DIS-SOLVED (UG/L AS SR) (01080)	VANA-DIUM, DIS-SOLVED (UG/L AS V) (01085)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
	HAMILTON				
11N 7W 3CCC 1	79-04-05	--	--	--	--
11N 7W 4DD 1	79-04-05	--	--	--	--
11N 7W 6CC 1	79-04-05	--	--	--	--
11N 7W10BAA 1	79-04-05	--	--	--	--
	HAYES				
5N 31W19AD 1	79-09-13	--	--	--	--
5N 33W23BAA 1	79-08-31	--	--	--	--
5N 34W21ADA 1	79-08-31	--	--	--	--
6N 31W20AD 1	79-09-11	--	--	--	--
6N 31W28BA 1	79-05-18	--	--	--	--
	79-08-31	--	--	--	--
6N 32W14CB 1	79-09-12	--	--	--	--
6N 33W14CA 1	79-08-31	--	--	--	--
6N 34W 2DD 1	79-05-18	--	--	--	--
	79-08-30	--	--	--	--
6N 35W 1DDD 1	79-09-04	--	--	--	--
6N 35W33BD 1	79-09-12	--	--	--	--
7N 31W17BBD 1	79-08-31	--	--	--	--
7N 32W14CD 1	79-09-11	--	--	--	--
7N 33W20BAC 1	79-08-31	--	--	--	--
7N 35W20DCD 1	79-09-04	--	--	--	--
8N 31W11CC 1	79-08-31	--	--	--	--
8N 31W23CCA 1	79-09-05	--	--	--	--
8N 32W26ACA 1	79-07-27	--	--	--	--
	79-09-04	--	--	--	--
8N 33W23CCA 1	79-09-04	--	--	--	--
8N 35W 1AB 1	79-09-04	--	--	--	--
8N 35W33ADC 1	79-05-18	--	--	--	--
	79-09-04	--	--	--	--
	HITCHCOCK				
2N 34W18AA 1	79-08-30	--	--	--	--
3N 31W 8DC 1	79-09-13	--	--	--	--
3N 32W 5CC 1	79-09-13	--	--	--	--
3N 33W22AB 1	79-09-12	--	--	--	--
3N 34W 2BD 1	79-09-12	--	--	--	--
3N 35W28AAA 1	79-08-30	--	--	--	--
4N 31W22C 1	79-09-12	--	--	--	--
4N 31W25BC 1	79-05-18	--	--	--	--
	79-09-04	--	--	--	--
4N 31W25BD 1	79-09-12	--	--	--	--
4N 32W12DB 1	79-09-12	--	--	--	--
4N 33W26BB 1	79-08-31	--	--	--	--

LOCAL IDENT-I-FIER	LAT-I-TUDE	LONG-I-TUDE	SEQ. NO.	GEO-LOGIC UNIT	DATE OF SAMPLE	TIME	DEPTH OF WELL, TOTAL (FEET) (72008)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)
					HITCHCOCK					
4N 34W21BC 1	40 18 00	101 10 17	01	121OGLL	79-09-12	--	320	405	7.2	17.5
4N 35W28DCC 1	40 16 43	101 16 36	01	--	79-07-27	--	--	320	8.0	--
				--	79-08-30	--	--	387	7.9	16.5
					HOLT					
28N 9W 4CDCC1	42 25 24	098 22 21	01	112SDGV	79-06-27	1125	119	262	6.9	12.0
29N 9W18AC 1	42 29 25	098 24 42	01	112SDGV	79-06-27	0950	104	240	6.6	13.0
29N 10W28DA 1	42 27 23	098 29 01	01	112SDGV	79-06-27	1155	45	165	6.7	13.0
29N 11W 9DC 1	42 29 44	098 36 08	01	112SDGV	79-06-27	1430	36	224	7.0	15.0
29N 12W 30D 2	42 30 36	098 42 02	02	112SDGV	79-06-25	1330	102	468	6.6	14.5
29N 12W14AC 1	42 29 17	098 40 51	01	121OGLL	79-06-25	2200	297	835	6.6	10.0
29N 12W24BD 1	42 28 25	098 39 59	01	121OGLL	79-06-28	0830	322	285	7.3	15.0
29N 13W 4CD 1	42 30 42	098 50 36	01	121OGLL	79-06-27	1330	312	603	6.5	13.0
30N 9W 7CD 1	42 35 10	098 25 05	01	121OGLL	79-06-28	1045	250	179	6.9	13.0
30N 10W17D 1	42 34 15	098 30 20	01	121OGLL	79-06-28	1145	250	135	7.3	14.0
30N 12W23BA 1	42 33 52	098 41 26	01	112SDGV	79-06-25	2105	85	350	7.5	13.5
30N 13W13CD 1	42 34 04	098 47 14	01	110ORNR	79-06-25	1645	80	301	7.1	16.0
30N 14W18B 1	42 34 37	099 00 04	01	112SDGV	79-06-26	1500	104	204	7.0	18.0
30N 14W23AA 2	42 33 52	098 54 54	02	112SDGV	79-06-26	1805	68	325	6.6	15.0
31N 12W31BA 1	42 37 22	098 46 05	01	110WDRS	79-06-25	1540	85	303	7.5	--
31N 12W35AB 1	42 37 22	098 41 08	01	110WDRS	79-06-25	1500	36	232	7.1	15.0
31N 13W 8CC 1	42 40 11	098 51 54	01	112SDGV	79-06-26	1715	156	398	6.3	14.0
31N 14W16AB 1	42 39 54	098 58 07	01	112SDGV	79-06-26	1610	132	419	6.8	16.0
					HOWARD					
13N 11W11BA 1	41 07 11	098 33 07	01	121OGLL	78-10-05	--	144	528	7.3	13.5
				121OGLL	79-05-29	--	144	594	7.3	13.5
				121OGLL	79-08-01	1015	144	600	7.4	14.0
13N 12W20DC 1	41 04 43	098 42 55	01	121OGLL	78-10-04	--	268	470	7.4	13.5
				121OGLL	79-05-29	--	268	471	7.5	12.5
				121OGLL	79-07-30	1100	268	487	7.6	14.5
14N 11W 6BAC 1	41 13 03	098 37 39	01	121OGLL	78-10-04	--	150	528	7.3	14.0
				121OGLL	79-05-29	--	150	542	7.4	13.5
				121OGLL	79-07-30	1640	150	540	7.3	14.0
15N 10W28DA 1	41 14 23	098 27 53	01	121OGLL	79-08-01	0930	162	573	7.4	13.5
15N 11W10CBA 1	41 17 05	098 34 17	01	121OGLL	78-10-04	--	150	500	7.6	13.0
				121OGLL	79-05-30	--	150	587	7.3	12.0
				121OGLL	79-07-31	0830	150	578	7.3	13.0
					JEFFERSON					
1N 1E 8AA 1	40 04 22	097 19 59	01	112SDGV	79-08-31	--	--	603	7.3	14.5
1N 1E12CA 1	40 03 56	097 16 01	01	112SDGV	79-08-31	1020	--	599	7.1	15.0
1N 2E26AB 1	40 01 46	097 10 04	01	112SDGV	79-08-31	--	--	461	6.8	14.5
1N 3E 4BD 1	40 05 01	097 05 49	01	211DKOT	79-08-31	0845	--	363	7.4	15.0
1N 4E19BD 1	40 02 23	097 01 19	01	211DKOT	79-08-31	--	--	372	7.0	14.5
2N 1E10BD 1	40 09 23	097 18 17	01	112SDGV	79-08-31	--	--	1360	7.1	14.5

LOCAL IDENT- I- FIER	DATE OF SAMPLE	COLOR (PLAT- INUM- COBALT UNITS) (00080)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L CACO3) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L AS HCO3) (00440)
HITCHCOCK										
4N 34W21BC 1	79-09-12	--	150	0	41	12	26	.9	12	--
4N 35W28DCC 1	79-07-27	--	160	13	42	14	13	.4	8.6	--
	79-08-30	--	160	0	43	13	20	.7	11	--
HOLT										
28N 9W 4CDCC1	79-06-27	--	98	8	31	5.0	10	.4	3.3	--
29N 9W18AC 1	79-06-27	--	80	68	24	4.9	7.8	.4	3.0	--
29N 10W28DA 1	79-06-27	--	53	37	16	3.2	6.5	.4	2.3	--
29N 11W 9DC 1	79-06-27	--	80	45	24	4.8	7.3	.4	4.3	--
29N 12W 30D 2	79-06-25	--	160	110	45	11	17	.6	5.0	--
29N 12W14AC 1	79-06-25	--	300	260	85	22	17	.4	6.7	--
29N 12W24BD 1	79-06-28	--	140	35	43	6.7	9.5	.4	5.1	--
29N 13W 4CD 1	79-06-27	--	200	170	59	13	13	.4	3.1	--
30N 9W 7CD 1	79-06-28	--	62	24	19	3.5	8.2	.5	2.9	--
30N 10W17D 1	79-06-28	--	52	0	17	2.2	5.5	.3	3.0	--
30N 12W23BA 1	79-06-25	--	150	84	49	6.1	10	.4	4.7	--
30N 13W13CD 1	79-06-25	--	110	21	37	4.5	7.7	.3	4.8	--
30N 14W1BB 1	79-06-26	--	67	22	21	3.5	7.8	.4	4.0	--
30N 14W23AA 2	79-06-26	--	120	59	38	5.6	14	.6	6.7	--
31N 12W31BA 1	79-06-25	--	130	0	43	5.8	9.7	.4	6.0	--
31N 12W35AB 1	79-06-25	--	100	36	34	4.0	5.6	.2	3.4	--
31N 13W 8CC 1	79-06-26	--	160	140	49	9.9	9.8	.3	4.5	--
31N 14W16BB 1	79-06-26	--	150	100	48	7.8	8.2	.3	4.6	--
HOWARD										
13N 11W11BA 1	78-10-05	--	270	0	80	16	17	.5	7.7	340
	79-05-29	--	320	30	99	17	16	.4	7.8	350
	79-08-01	--	310	27	93	18	16	.4	7.7	340
13N 12W20DC 1	78-10-04	--	210	0	69	9.8	11	.3	5.8	270
	79-05-29	--	240	11	80	10	10	.3	6.0	280
	79-07-30	--	240	13	79	11	11	.3	6.0	280
14N 11W 6BAC 1	78-10-04	--	250	0	81	12	9.1	.3	6.3	330
	79-05-29	--	290	12	95	13	9.2	.2	6.8	340
	79-07-30	--	--	--	--	14	9.5	--	6.5	330
15N 10W28DA 1	79-08-01	--	280	54	89	15	16	.4	9.5	280
15N 11W10CBA 1	78-10-04	--	260	23	83	13	12	.3	7.1	290
	79-05-30	--	300	13	97	14	14	.4	7.4	350
	79-07-31	--	300	38	94	16	13	.3	7.3	320
JEFFERSON										
1N 1E 8AA 1	79-08-31	--	280	11	98	9.0	29	.8	2.3	330
1N 1E12CA 1	79-08-31	--	290	66	100	9.2	30	.8	2.4	270
1N 2E26AB 1	79-08-31	--	--	--	--	--	--	--	3.0	150
1N 3E 4BD 1	79-08-31	--	130	12	39	7.1	24	.9	2.2	180
1N 4E19BD 1	79-08-31	--	120	17	38	7.0	26	1.0	2.5	130
2N 1E10BD 1	79-08-31	--	440	67	150	17	96	2.0	4.7	460

LOCAL IDENT- I- FIER	DATE OF SAMPLE	CAR- BONATE (MG/L AS CO3) (00445)	ALKA- LINITY (MG/L AS CACO3) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)
				HITCHCOCK						
4N 34W21BC 1	79-09-12	--	180	25	3.0	.9	66	--	302	.41
4N 35W28DCC 1	79-07-27	--	150	20	1.5	.8	54	--	253	.34
	79-08-30	--	190	22	2.3	1.1	63	--	296	.40
				HOLT						
28N 9W 4CDCC1	79-06-27	--	90	12	1.4	.2	45	197	195	.27
29N 9W18AC 1	79-06-27	--	12	17	5.6	.2	28	205	182	.28
29N 10W28DA 1	79-06-27	--	16	13	4.9	.1	27	140	127	.19
29N 11W 9DC 1	79-06-27	--	35	17	7.7	.1	28	172	159	.23
29N 12W 3DD 2	79-06-25	--	48	26	10	.1	26	346	320	.47
29N 12W14AC 1	79-06-25	--	41	23	16	.1	19	685	550	.93
29N 12W24BD 1	79-06-28	--	100	17	3.8	.3	53	224	256	.30
29N 13W 4CD 1	79-06-27	--	34	34	10	.1	20	451	368	.61
30N 9W 7CD 1	79-06-28	--	38	12	3.1	.2	37	147	144	.20
30N 10W17D 1	79-06-28	--	53	7.3	1.4	.2	49	122	126	.17
30N 12W23BA 1	79-06-25	--	64	14	14	.1	42	326	285	.44
30N 13W13CD 1	79-06-25	--	90	12	3.1	.3	60	239	228	.33
30N 14W18B 1	79-06-26	--	45	13	5.5	.2	42	159	156	.22
30N 14W23AA 2	79-06-26	--	59	19	7.0	.2	40	260	246	.35
31N 12W31BA 1	79-06-25	--	140	8.1	1.5	.3	59	213	225	.29
31N 12W35AB 1	79-06-25	--	65	16	2.0	.1	42	190	186	.26
31N 13W BCC 1	79-06-26	--	28	21	11	.1	29	370	320	.50
31N 14W16BB 1	79-06-26	--	49	16	9.3	.1	38	331	308	.45
				HOWARD						
13N 11W11BA 1	78-10-05	0	279	23	12	--	--	--	--	--
	79-05-29	0	287	29	12	--	--	--	--	--
	79-08-01	0	279	29	15	--	--	--	--	--
13N 12W20DC 1	78-10-04	0	221	18	3.9	--	--	--	--	--
	79-05-29	0	230	23	5.0	--	--	--	--	--
	79-07-30	0	230	23	5.1	--	--	--	--	--
14N 11W 6BAC 1	78-10-04	0	271	19	1.5	--	--	--	--	--
	79-05-29	0	279	21	2.1	--	--	--	--	--
	79-07-30	0	271	22	1.9	--	--	--	--	--
15N 10W28DA 1	79-08-01	0	230	36	6.2	--	--	--	--	--
15N 11W10CBA 1	78-10-04	0	238	25	5.1	--	--	--	--	--
	79-05-30	0	287	32	6.4	--	--	--	--	--
	79-07-31	0	262	29	5.8	--	--	--	--	--
				JEFFERSON						
1N 1E 8AA 1	79-08-31	0	271	18	16	--	--	--	--	--
1N 1E12CA 1	79-08-31	0	221	38	17	--	--	--	--	--
1N 2E26AB 1	79-08-31	0	123	130	4.8	--	--	--	--	--
1N 3E 4BD 1	79-08-31	0	115	45	15	--	--	--	--	--
1N 4E19BD 1	79-08-31	0	107	45	13	--	--	--	--	--
2N 1E10BD 1	79-08-31	0	377	78	110	--	--	--	--	--

LOCAL IDENT- I- FIER	DATE OF SAMPLE	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00666)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)
				HITCHCOCK						
4N 34W21BC 1	79-09-12	--	1.7	--	--	--	--	--	--	--
4N 35W28DCC 1	79-07-27	--	1.9	--	--	--	--	--	--	--
	79-08-30	--	1.5	--	--	--	--	--	--	--
				HOLT						
28N 9W 4CDCC1	79-06-27	--	7.4	--	--	--	--	--	--	--
29N 9W18AC 1	79-06-27	--	19	--	--	--	--	--	--	--
29N 10W28DA 1	79-06-27	--	10	--	--	--	--	--	--	--
29N 11W 9DC 1	79-06-27	--	10	--	--	--	--	--	--	--
29N 12W 3DD 2	79-06-25	--	34	--	--	--	--	--	--	--
29N 12W14AC 1	79-06-25	--	76	--	--	--	--	--	--	--
29N 12W24BD 1	79-06-28	--	13	--	--	--	--	--	--	--
29N 13W 4CD 1	79-06-27	--	48	--	--	--	--	--	--	--
30N 9W 7CD 1	79-06-28	--	8.0	--	--	--	--	--	--	--
30N 10W17D 1	79-06-28	--	1.9	--	--	--	--	--	--	--
30N 12W23BA 1	79-06-25	--	24	--	--	--	--	--	--	--
30N 13W13CD 1	79-06-25	--	10	--	--	--	--	--	--	--
30N 14W18B 1	79-06-26	--	7.1	--	--	--	--	--	--	--
30N 14W23AA 2	79-06-26	--	18	--	--	--	--	--	--	--
31N 12W31BA 1	79-06-25	--	1.7	--	--	--	--	--	--	--
31N 12W35AB 1	79-06-25	--	8.9	--	--	--	--	--	--	--
31N 13W 8CC 1	79-06-26	--	38	--	--	--	--	--	--	--
31N 14W16BB 1	79-06-26	--	33	--	--	--	--	--	--	--
				HOWARD						
13N 11W11BA 1	78-10-05	--	.57	--	--	--	--	--	--	--
	79-05-29	--	.42	--	--	--	--	--	--	--
	79-08-01	--	.48	--	--	--	--	--	--	--
13N 12W20DC 1	78-10-04	--	1.3	--	--	--	--	--	--	--
	79-05-29	--	1.5	--	--	--	--	--	--	--
	79-07-30	--	1.2	--	--	--	--	--	--	--
14N 11W 6BAC 1	78-10-04	--	.47	--	--	--	--	--	--	--
	79-05-29	--	.36	--	--	--	--	--	--	--
	79-07-30	--	.38	--	--	--	--	--	--	--
15N 10W28DA 1	79-08-01	--	8.2	--	--	--	--	--	--	--
15N 11W10CBA 1	78-10-04	--	2.4	--	--	--	--	--	--	--
	79-05-30	--	2.2	--	--	--	--	--	--	--
	79-07-31	--	2.0	--	--	--	--	--	--	--
				JEFFERSON						
1N 1E 8AA 1	79-08-31	--	5.8	--	--	--	--	--	--	--
1N 1E12CA 1	79-08-31	--	8.5	--	--	--	--	--	--	--
1N 2E26AB 1	79-08-31	--	.15	--	--	--	--	--	--	--
1N 3E 4BD 1	79-08-31	--	2.5	--	--	--	--	--	--	--
1N 4E19BD 1	79-08-31	--	6.7	--	--	--	--	--	--	--
2N 1E10BD 1	79-08-31	--	5.8	--	--	--	--	--	--	--

LOCAL IDENT- I- FIER	DATE OF SAMPLE	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)
					HITCHCOCK					
4N 34W21BC 1	79-09-12	--	--	--	90	--	--	--	--	--
4N 35W28DCC 1	79-07-27	--	--	--	60	--	--	--	--	--
	79-08-30	--	--	--	80	--	--	--	--	--
					HOLT					
28N 9W 4CDCC1	79-06-27	--	--	--	30	--	--	--	--	40
29N 9W18AC 1	79-06-27	--	--	--	30	--	--	--	--	20
29N 10W29DA 1	79-06-27	--	--	--	20	--	--	--	--	20
29N 11W 9DC 1	79-06-27	--	--	--	40	--	--	--	--	0
29N 12W 30D 2	79-06-25	--	--	--	30	--	--	--	--	10
29N 12W14AC 1	79-06-25	--	--	--	40	--	--	--	--	50
29N 12W24BD 1	79-06-28	--	--	--	30	--	--	--	--	40
29N 13W 4CD 1	79-06-27	--	--	--	40	--	--	--	--	10
30N 9W 7CD 1	79-06-28	--	--	--	20	--	--	--	--	10
30N 10W17D 1	79-06-28	--	--	--	30	--	--	--	--	40
30N 12W23BA 1	79-06-25	--	--	--	20	--	--	--	--	20
30N 13W13CD 1	79-06-25	--	--	--	30	--	--	--	--	40
30N 14W1AB 1	79-06-26	--	--	--	30	--	--	--	--	10
30N 14W23AA 2	79-06-26	--	--	--	20	--	--	--	--	40
31N 12W31BA 1	79-06-25	--	--	--	30	--	--	--	--	10
31N 12W35AB 1	79-06-25	--	--	--	30	--	--	--	--	10
31N 13W 8CC 1	79-06-26	--	--	--	30	--	--	--	--	40
31N 14W16BB 1	79-06-26	--	--	--	30	--	--	--	--	10
					HOWARD					
13N 11W11BA 1	78-10-05	--	--	--	--	--	--	--	--	--
	79-05-29	--	--	--	--	--	--	--	--	--
	79-08-01	--	--	--	--	--	--	--	--	--
13N 12W20DC 1	78-10-04	--	--	--	--	--	--	--	--	--
	79-05-29	--	--	--	--	--	--	--	--	--
	79-07-30	--	--	--	--	--	--	--	--	--
14N 11W 6BAC 1	78-10-04	--	--	--	--	--	--	--	--	--
	79-05-29	--	--	--	--	--	--	--	--	--
	79-07-30	--	--	--	--	--	--	--	--	--
15N 10W28DA 1	79-08-01	--	--	--	--	--	--	--	--	--
15N 11W10CBA 1	78-10-04	--	--	--	--	--	--	--	--	--
	79-05-30	--	--	--	--	--	--	--	--	--
	79-07-31	--	--	--	--	--	--	--	--	--
					JEFFERSON					
1N 1E 8AA 1	79-08-31	--	--	--	--	--	--	--	--	--
1N 1E12CA 1	79-08-31	--	--	--	--	--	--	--	--	--
1N 2E26AB 1	79-08-31	--	--	--	--	--	--	--	--	--
1N 3E 8BD 1	79-08-31	--	--	--	--	--	--	--	--	--
1N 4E19BD 1	79-08-31	--	--	--	--	--	--	--	--	--
2N 1E10BD 1	79-08-31	--	--	--	--	--	--	--	--	--

LOCAL IDENT- I- FIER	DATE OF SAMPLE	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)
				HITCHCOCK				
4N 34W21BC 1	79-09-12	--	--	--	--	--	--	--
4N 35W28DCC 1	79-07-27	--	--	--	--	--	--	--
	79-08-30	--	--	--	--	--	--	--
				HOLT				
28N 9W 4CDCC1	79-06-27	--	--	<1	--	--	--	--
29N 9W18AC 1	79-06-27	--	--	1	--	--	--	--
29N 10W28DA 1	79-06-27	--	--	4	--	--	--	--
29N 11W 9DC 1	79-06-27	--	--	1	--	--	--	--
29N 12W 3DD 2	79-06-25	--	--	2	--	--	--	--
29N 12W14AC 1	79-06-25	--	--	6	--	--	--	--
29N 12W24BD 1	79-06-28	--	--	2	--	--	--	--
29N 13W 4CD 1	79-06-27	--	--	30	--	--	--	--
30N 9W 7CD 1	79-06-28	--	--	2	--	--	--	--
30N 10W17D 1	79-06-28	--	--	<1	--	--	--	--
30N 12W23BA 1	79-06-25	--	--	5	--	--	--	--
30N 13W13CD 1	79-06-25	--	--	<1	--	--	--	--
30N 14W1BB 1	79-06-26	--	--	6	--	--	--	--
30N 14W23AA 2	79-06-26	--	--	7	--	--	--	--
31N 12W31BA 1	79-06-25	--	--	<1	--	--	--	--
31N 12W35AB 1	79-06-25	--	--	2	--	--	--	--
31N 13W 8CC 1	79-06-26	--	--	350	--	--	--	--
31N 14W16BB 1	79-06-26	--	--	1	--	--	--	--
				HOWARD				
13N 11W11BA 1	78-10-05	--	--	--	--	--	--	--
	79-05-29	--	--	--	--	--	--	--
	79-08-01	--	--	--	--	--	--	--
13N 12W20DC 1	78-10-04	--	--	--	--	--	--	--
	79-05-29	--	--	--	--	--	--	--
	79-07-30	--	--	--	--	--	--	--
14N 11W 6BAC 1	78-10-04	--	--	--	--	--	--	--
	79-05-29	--	--	--	--	--	--	--
	79-07-30	--	--	--	--	--	--	--
15N 10W28DA 1	79-08-01	--	--	--	--	--	--	--
15N 11W10CBA 1	78-10-04	--	--	--	--	--	--	--
	79-05-30	--	--	--	--	--	--	--
	79-07-31	--	--	--	--	--	--	--
				JEFFERSON				
1N 1E 8AA 1	79-08-31	--	--	--	--	--	--	--
1N 1E12CA 1	79-08-31	--	--	--	--	--	--	--
1N 2E26AB 1	79-08-31	--	--	--	--	--	--	--
1N 3E 4BD 1	79-08-31	--	--	--	--	--	--	--
1N 4E19BD 1	79-08-31	--	--	--	--	--	--	--
2N 1E10BD 1	79-08-31	--	--	--	--	--	--	--

LOCAL IDENT- I- FIER	DATE OF SAMPLE	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)
	HITCHCOCK				
4N 34W21BC 1	79-09-12	--	--	--	--
4N 35W28DCC 1	79-07-27	--	--	--	--
	79-08-30	--	--	--	--
	HOLT				
28N 9W 4CDCC1	79-06-27	--	--	--	--
29N 9W18AC 1	79-06-27	--	--	--	--
29N 10W28DA 1	79-06-27	--	--	--	--
29N 11W 9DC 1	79-06-27	--	--	--	--
29N 12W 3DD 2	79-06-25	--	--	--	--
29N 12W14AC 1	79-06-25	--	--	--	--
29N 12W24BD 1	79-06-28	--	--	--	--
29N 13W 4CD 1	79-06-27	--	--	--	--
30N 9W 7CD 1	79-06-28	--	--	--	--
30N 10W17D 1	79-06-29	--	--	--	--
30N 12W23BA 1	79-06-25	--	--	--	--
30N 13W13CD 1	79-06-25	--	--	--	--
30N 14W1BB 1	79-06-26	--	--	--	--
30N 14W23AA 2	79-06-26	--	--	--	--
31N 12W31BA 1	79-06-25	--	--	--	--
31N 12W35AB 1	79-06-25	--	--	--	--
31N 13W 8CC 1	79-06-26	--	--	--	--
31N 14W16BB 1	79-06-26	--	--	--	--
	HOWARD				
13N 11W11BA 1	78-10-05	--	--	--	--
	79-05-29	--	--	--	--
	79-08-01	--	--	--	--
13N 12W20DC 1	78-10-04	--	--	--	--
	79-05-29	--	--	--	--
	79-07-30	--	--	--	--
14N 11W 6DAC 1	78-10-04	--	--	--	--
	79-05-29	--	--	--	--
	79-07-30	--	--	--	--
15N 10W28DA 1	79-08-01	--	--	--	--
15N 11W10CBA 1	78-10-04	--	--	--	--
	79-05-30	--	--	--	--
	79-07-31	--	--	--	--
	JEFFERSON				
1N 1E 8AA 1	79-08-31	--	--	--	--
1N 1E12CA 1	79-08-31	--	--	--	--
1N 2E26AB 1	79-08-31	--	--	--	--
1N 3E 4BD 1	79-08-31	--	--	--	--
1N 4E19BD 1	79-08-31	--	--	--	--
2N 1E10BD 1	79-08-31	--	--	--	--

LOCAL IDENT-I-FIER	LAT-I-TUDE	LONG-I-TUDE	SEQ. NO.	GEO-LOGIC UNIT	DATE OF SAMPLE	TIME	DEPTH OF WELL, TOTAL (FEET) (72008)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)
JEFFERSON										
2N 2E21AB 1	40 07 51	097 12 28	01	112SDGV	79-08-31	--	--	852	7.3	15.0
2N 3E27AA 1	40 06 59	097 04 08	01	112SDGV	79-08-31	--	--	391	7.2	15.0
3N 1E17AA 1	40 13 57	097 19 59	01	112SDGV	79-08-30	--	--	295	6.9	15.0
KEARNEY										
5N 13W15CD 1	40 23 51	098 46 34	01	112SDGV	79-07-25	1630	234	549	7.6	14.0
5N 14W 7AB 1	40 25 15	098 56 21	01	112SDGV	79-07-25	1530	231	601	7.6	14.5
6N 13W16CC 1	40 28 57	098 47 54	01	112SDGV	79-07-25	1420	200	482	7.8	14.0
6N 14W 6CB 1	40 30 55	098 57 00	01	--	79-07-25	1300	--	600	7.7	20.0
7N 14W23CC 1	40 33 10	098 52 30	01	112SDGV	79-07-26	1130	190	589	7.7	14.0
KEYA PAHA										
33N 21W 7AD 1	42 50 50	099 49 41	01	121OGLL	79-06-26	1010	80	85	7.2	14.0
KNOX										
29N 8W32AAA 1	42 27 02	098 16 03	01	121OGLL	79-06-27	1040	--	413	7.3	12.5
LINCOLN										
9N 28W10DB 1	40 45 46	100 29 54	01	--	79-09-05	--	--	387	7.5	17.0
9N 29W 9DC 1	40 45 38	100 37 42	01	121OGLL	79-09-11	--	396	345	7.5	17.0
9N 31W 6DAC 1	40 46 33	100 53 28	01	--	79-07-12	--	--	366	7.6	13.0
				--	79-09-13	--	--	358	7.3	--
9N 32W21BA 1	40 44 25	100 58 28	01	--	79-08-30	--	--	359	7.7	14.0
9N 34W 3ACA 1	40 46 49	101 10 36	01	--	79-08-30	--	--	379	7.9	17.0
9N 34W23DC 1	40 43 41	101 09 31	01	121OGLL	79-09-11	--	460	361	7.4	16.5
10N 28W20DC 1	40 49 01	100 32 12	01	121OGLL	79-09-13	--	260	435	7.2	14.5
10N 29W17CA 1	40 50 06	100 38 47	01	--	79-09-05	--	--	337	7.9	15.0
10N 30W11CDB 1	40 50 50	100 42 38	01	--	79-07-05	--	--	--	7.8	--
10N 30W13AC 1	40 50 18	100 41 08	01	121OGLL	79-09-11	--	479	322	7.3	16.0
10N 30W32CC 1	40 47 15	100 46 07	01	121OGLL	79-09-11	--	348	341	7.4	16.5
10N 31W 2BBD 1	40 52 12	100 49 36	01	--	79-09-05	--	--	323	7.7	14.0
10N 32W20AA 1	40 49 38	100 59 02	01	--	79-09-05	--	--	337	7.8	15.0
10N 34W17BBD 1	40 50 21	100 13 22	01	--	79-07-12	--	--	381	8.2	--
				--	79-08-29	--	--	373	7.8	15.0
11N 26W 7CD 1	40 55 58	100 19 49	01	121OGLL	79-09-11	--	--	588	7.6	15.0
11N 30W22AAC 1	40 54 48	100 43 06	01	--	79-08-30	--	--	319	7.8	14.0
11N 31W21AAC 1	40 54 49	100 51 11	01	--	79-08-30	--	--	276	7.8	14.0
11N 32W10BCAA1	40 56 28	101 57 29	01	--	79-09-06	--	--	274	7.8	14.0
11N 33W28DDA 1	40 53 25	101 08 50	01	--	79-09-04	--	--	340	7.7	15.0
11N 34W19DDB 1	40 54 16	101 13 55	01	--	79-08-30	--	--	387	7.8	15.0
12N 27W2ACB 1	40 58 47	100 24 41	01	121OGLL	79-09-11	--	--	602	7.3	15.0
12N 27W29DCC 1	40 58 28	100 25 11	01	--	79-07-13	--	--	821	7.7	13.0
12N 28W 5CC 1	41 02 02	100 32 47	01	121OGLL	79-09-11	--	--	787	7.5	15.0
12N 30W 4DBD 1	41 02 12	100 44 22	01	--	79-08-31	--	--	761	7.7	15.0
12N 31W21AAC 1	41 00 00	100 51 13	01	121OGLL	79-05-09	--	340	--	--	16.0
				121OGLL	79-08-31	--	340	315	7.8	15.0
12N 32W19CAC 1	40 59 35	101 00 49	01	--	79-08-31	--	--	339	7.8	15.0
12N 33W19BBD 1	41 00 01	101 07 39	01	121OGLL	79-05-12	--	400	--	--	14.0

LOCAL IDENT- I- FIER	DATE OF SAMPLE	COLOR (PLAT- INUM- COBALT UNITS) (00080)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L CACO3) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L AS HCO3) (00440)
				JEFFERSON						
2N 2E21AB 1	79-08-31	--	220	13	72	9.4	100	2.9	3.7	250
2N 3E27AA 1	79-08-31	--	120	0	35	6.7	41	1.6	1.7	180
3N 1E17AA 1	79-08-30	--	110	10	33	6.2	16	.7	3.4	120
				KEARNEY						
5N 13W15CD 1	79-07-25	--	250	15	80	11	18	.5	9.8	280
5N 14W 7AB 1	79-07-25	--	260	18	86	12	25	.7	11	300
6N 13W1ACC 1	79-07-25	--	210	17	68	8.6	16	.5	9.7	230
6N 14W 6CB 1	79-07-25	--	250	23	83	11	27	.7	12	280
7N 14W23CC 1	79-07-26	--	240	46	82	9.3	23	.6	12	240
				KEYA PAHA						
33N 21W 7AD 1	79-06-26	--	28	5	9.2	1.2	4.0	.3	4.3	--
				KNOX						
29N 8W32AAA 1	79-06-27	--	160	0	53	5.7	20	.7	5.4	--
				LINCOLN						
9N 28W10DB 1	79-09-05	--	200	19	60	12	8.6	.3	9.6	--
9N 29W 9DC 1	79-09-11	--	150	0	45	9.8	10	.4	11	--
9N 31W 6DAC 1	79-07-12	--	170	0	48	12	10	.3	9.8	--
	79-09-13	--	170	5	48	11	11	.4	12	--
9N 32W21BA 1	79-08-30	--	160	0	49	9.0	9.8	.3	8.4	--
9N 34W 3ACA 1	79-08-30	--	150	0	40	12	18	.8	10	--
9N 34W23DC 1	79-09-11	--	150	0	41	12	12	.4	12	--
10N 28W20DC 1	79-09-13	--	210	8	62	13	7.1	.2	12	--
10N 29W17CA 1	79-09-05	--	180	0	44	8.0	9.6	.4	9.3	--
10N 30W11CDB 1	79-07-05	--	170	--	55	8.9	10	.3	9.9	--
10N 30W13AC 1	79-09-11	--	140	0	40	8.5	8.9	.3	10	--
10N 30W32CC 1	79-09-11	--	150	0	46	9.0	8.7	.3	11	--
10N 31W 2BBD 1	79-09-05	--	160	6	46	10	8.8	.3	9.3	--
10N 32W20AA 1	79-09-05	--	150	0	45	9.0	9.8	.3	9.2	--
10N 34W17BBD 1	79-07-12	--	140	0	41	10	12	.4	12	--
	79-08-29	--	170	8	45	10	11	.4	12	--
11N 26W 7CD 1	79-09-11	--	240	22	69	17	13	.6	12	--
11N 30W22AAC 1	79-08-30	--	150	0	45	8.0	9.0	.3	8.8	--
11N 31W21AAC 1	79-08-30	--	140	6	48	6.4	8.0	.3	8.3	--
11N 32W10BCAA1	79-09-06	--	120	0	38	6.0	7.9	.3	8.3	--
11N 33W28DDB 1	79-09-06	--	140	0	46	10	12	.4	10	--
11N 34W19DDB 1	79-08-30	--	160	0	48	11	14	.5	11	--
12N 27W2ACB 1	79-09-11	--	250	41	78	16	27	.7	14	--
12N 27W29DCC 1	79-07-13	--	370	120	110	24	42	.9	18	--
12N 28W 5CC 1	79-09-11	--	240	49	66	18	76	2.1	13	--
12N 30W 4DBD 1	79-08-31	--	310	150	96	17	35	.9	11	--
12N 31W21AAC 1	79-05-09	--	140	0	40	8.6	12	.4	9.3	--
	79-08-31	--	140	0	41	9.0	8.5	.3	8.8	--
12N 32W19CAC 1	79-08-31	--	150	10	47	8.0	9.6	.3	8.8	--
12N 33W19BBD 1	79-05-12	--	140	0	41	10	15	.5	10	--

LOCAL IDENT- I- FIER	DATE OF SAMPLE	CAR- BONATE (MG/L AS CO3) (00445)	ALKA- LINITY (MG/L AS CACO3) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)
				JEFFERSON						
2N 2E21AB 1	79-08-31	0	205	30	130	--	--	--	--	--
2N 3E27AA 1	79-08-31	0	148	20	17	--	--	--	--	--
3N 1E17AA 1	79-08-30	0	98	18	7.5	--	--	--	--	--
				KEARNEY						
5N 13W15CD 1	79-07-25	0	230	54	6.9	--	--	--	--	--
5N 14W 7AB 1	79-07-25	0	246	64	6.7	--	--	--	--	--
6N 13W16CC 1	79-07-25	0	189	41	8.0	--	--	--	--	--
6N 14W 6CB 1	79-07-25	0	230	73	9.5	--	--	--	--	--
7N 14W23CC 1	79-07-26	0	197	99	9.7	--	--	--	--	--
				KEYA PAHA						
33N 21W 7AD 1	79-06-26	--	23	10	.9	.2	67	61	116	.08
				KNOX						
29N 8W32AAA 1	79-06-27	--	180	12	2.2	.3	60	304	296	.41
				LINCOLN						
9N 28W10DB 1	79-09-05	--	180	14	2.1	.5	62	--	294	.40
9N 29W 9DC 1	79-09-11	--	160	17	2.2	.5	67	--	270	.37
9N 31W 8DAC 1	79-07-12	--	170	13	2.5	.4	57	--	265	.36
	79-09-13	--	160	15	2.2	.5	65	--	272	.37
9N 32W21BA 1	79-08-30	--	160	11	2.0	.4	60	--	252	.34
9N 34W 3ACA 1	79-08-30	--	160	20	4.4	.6	54	--	264	.36
9N 34W23DC 1	79-09-11	--	170	18	4.1	.7	60	--	271	.37
10N 28W20DC 1	79-09-13	--	200	16	3.8	.5	63	--	323	.44
10N 29W17CA 1	79-09-05	--	150	12	1.8	.5	63	--	252	.34
10N 30W11CDB 1	79-07-05	--	--	--	--	--	--	--	--	--
10N 30W13AC 1	79-09-11	--	150	13	1.7	.5	64	--	253	.34
10N 30W32CC 1	79-09-11	--	160	13	1.7	.5	65	--	264	.36
10N 31W 2BBD 1	79-09-05	--	150	10	1.2	.5	57	--	244	.33
10N 32W20AA 1	79-09-05	--	150	12	2.1	.4	59	--	246	.33
10N 34W17BAD 1	79-07-12	--	170	19	3.5	.5	59	--	273	.37
	79-08-29	--	170	26	4.7	.6	53	--	278	.38
11N 26W 7CD 1	79-09-11	--	220	27	12	.5	63	--	383	.52
11N 30W22AAC 1	79-08-30	--	150	11	1.2	.5	58	--	245	.33
11N 31W21AAC 1	79-08-30	--	130	8.7	1.2	.5	60	--	219	.30
11N 32W10BCAA1	79-09-06	--	130	8.2	2.0	.4	56	--	213	.29
11N 33W2ADDB 1	79-09-04	--	160	13	2.4	.4	55	--	253	.34
11N 34W19DDB 1	79-08-30	--	170	17	4.0	.5	57	--	270	.37
12N 27W28CB 1	79-09-11	--	210	86	14	.4	63	--	439	.60
12N 27W29DCC 1	79-07-13	--	250	160	28	.4	56	--	609	.83
12N 28W 5CC 1	79-09-11	--	190	180	23	.6	36	--	532	.72
12N 30W 4DBD 1	79-08-31	--	160	210	27	.3	59	--	555	.75
12N 31W21AAC 1	79-05-09	--	140	12	1.9	.5	68	--	253	.34
	79-08-31	--	140	12	1.5	.5	57	--	234	.32
12N 32W19CAC 1	79-08-31	--	140	13	2.2	.4	51	--	234	.32
12N 33W19BBD 1	79-05-12	--	160	14	3.0	.5	71	--	270	.37

LOCAL IDENT-I-FIER	DATE OF SAMPLE	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P) (00666)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)
JEFFERSON										
2N 2E21AB 1	79-08-31	--	2.8	--	--	--	--	--	--	--
2N 3E27AA 1	79-08-31	--	4.2	--	--	--	--	--	--	--
3N 1E17AA 1	79-08-30	--	7.4	--	--	--	--	--	--	--
KEARNEY										
5N 13W15CD 1	79-07-25	--	.02	--	--	--	--	--	--	--
5N 14W 7AB 1	79-07-25	--	.22	--	--	--	--	--	--	--
6N 13W16CC 1	79-07-25	--	.78	--	--	--	--	--	--	--
6N 14W 6CB 1	79-07-25	--	.58	--	--	--	--	--	--	--
7N 14W23CC 1	79-07-26	--	.01	--	--	--	--	--	--	--
KEYA PAHA										
33N 21W 7AD 1	79-06-26	--	1.2	--	--	--	--	--	--	--
KNOX										
29N 8W32AAA 1	79-06-27	--	6.5	--	--	--	--	--	--	--
LINCOLN										
9N 28W10DB 1	79-09-05	--	3.9	--	--	--	--	--	--	--
9N 29W 9DC 1	79-09-11	--	2.5	--	--	--	--	--	--	--
9N 31W 6DAC 1	79-07-12	--	2.3	--	--	--	--	--	--	--
	79-09-13	--	2.6	--	--	--	--	--	--	--
9N 32W21BA 1	79-08-30	--	1.5	--	--	--	--	--	--	--
9N 34W 3ACA 1	79-08-30	--	2.0	--	--	--	--	--	--	--
9N 34W23DC 1	79-09-11	--	2.0	--	--	--	--	--	--	--
10N 28W20DC 1	79-09-13	--	5.8	--	--	--	--	--	--	--
10N 29W17CA 1	79-09-05	--	3.0	--	--	--	--	--	--	--
10N 30W11CDB 1	79-07-05	--	--	--	--	--	--	--	--	--
10N 30W13AC 1	79-09-11	--	2.7	--	--	--	--	--	--	--
10N 30W32CC 1	79-09-11	--	2.8	--	--	--	--	--	--	--
10N 31W 2BBD 1	79-09-05	--	2.5	--	--	--	--	--	--	--
10N 32W20AA 1	79-09-05	--	2.2	--	--	--	--	--	--	--
10N 34W17BBD 1	79-07-12	--	2.3	--	--	--	--	--	--	--
	79-08-29	--	2.2	--	--	--	--	--	--	--
11N 26W 7CD 1	79-09-11	--	8.4	--	--	--	--	--	--	--
11N 30W22AAC 1	79-08-30	--	2.9	--	--	--	--	--	--	--
11N 31W21AAC 1	79-08-30	--	1.7	--	--	--	--	--	--	--
11N 32W10BCAA1	79-09-06	--	1.9	--	--	--	--	--	--	--
11N 33W28DDB 1	79-09-04	--	1.9	--	--	--	--	--	--	--
11N 34W19DDB 1	79-08-30	--	2.0	--	--	--	--	--	--	--
12N 27W28CB 1	79-09-11	--	4.1	--	--	--	--	--	--	--
12N 27W29DCC 1	79-07-13	--	4.5	--	--	--	--	--	--	--
12N 28W 5CC 1	79-09-11	--	1.2	--	--	--	--	--	--	--
12N 30W 4DBD 1	79-08-31	--	.87	--	--	--	--	--	--	--
12N 31W21AAC 1	79-05-09	--	3.8	--	--	--	--	--	--	--
	79-08-31	--	2.7	--	--	--	--	--	--	--
12N 32W19CAC 1	79-08-31	--	2.2	--	--	--	--	--	--	--
12N 33W19BBD 1	79-05-12	--	2.1	--	--	--	--	--	--	--

LOCAL IDENT- I- FIER	DATE OF SAMPLE	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)
JEFFERSON										
2N 2E21AB 1	79-08-31	--	--	--	--	--	--	--	--	--
2N 3E27AA 1	79-08-31	--	--	--	--	--	--	--	--	--
3N 1E17AA 1	79-08-30	--	--	--	--	--	--	--	--	--
KEARNEY										
5N 13W15CD 1	79-07-25	--	--	--	--	--	--	--	--	--
5N 14W 7AB 1	79-07-25	--	--	--	--	--	--	--	--	--
6N 13W16CC 1	79-07-25	--	--	--	--	--	--	--	--	--
6N 14W 6CB 1	79-07-25	--	--	--	--	--	--	--	--	--
7N 14W23CC 1	79-07-26	--	--	--	--	--	--	--	--	--
KEYA PAHA										
33N 21W 7AD 1	79-06-26	--	--	--	20	--	--	--	--	30
KNOX										
29N 8W32AAA 1	79-06-27	--	--	--	50	--	--	--	--	<0
LINCOLN										
9N 28W10DB 1	79-09-05	--	--	--	60	--	--	--	--	--
9N 29W 9DC 1	79-09-11	--	--	--	50	--	--	--	--	--
9N 31W 6DAC 1	79-07-12	--	--	--	50	--	--	--	--	--
	79-09-13	--	--	--	50	--	--	--	--	--
9N 32W21BA 1	79-08-30	--	--	--	50	--	--	--	--	--
9N 34W 3ACA 1	79-08-30	--	--	--	70	--	--	--	--	--
9N 34W23DC 1	79-09-11	--	--	--	70	--	--	--	--	--
10N 28W20DC 1	79-09-13	--	--	--	50	--	--	--	--	--
10N 29W17CA 1	79-09-05	--	--	--	40	--	--	--	--	--
10N 30W11CDB 1	79-07-05	--	--	--	60	--	--	--	--	--
10N 30W13AC 1	79-09-11	--	--	--	50	--	--	--	--	--
10N 30W32CC 1	79-09-11	--	--	--	50	--	--	--	--	--
10N 31W 2BBD 1	79-09-05	--	--	--	40	--	--	--	--	--
10N 32W20AA 1	79-09-05	--	--	--	30	--	--	--	--	--
10N 34W17BBD 1	79-07-12	--	--	--	60	--	--	--	--	--
	79-08-29	--	--	--	70	--	--	--	--	--
11N 26W 7CD 1	79-09-11	--	--	--	70	--	--	--	--	--
11N 30W22AAC 1	79-08-30	--	--	--	50	--	--	--	--	--
11N 31W21AAC 1	79-08-30	--	--	--	80	--	--	--	--	--
11N 32W10BCAA1	79-09-06	--	--	--	20	--	--	--	--	--
11N 33W28DDB 1	79-09-04	--	--	--	50	--	--	--	--	--
11N 34W19DDB 1	79-08-30	--	--	--	70	--	--	--	--	--
12N 27W28CB 1	79-09-11	--	--	--	90	--	--	--	--	--
12N 27W29DCC 1	79-07-13	--	--	--	110	--	--	--	--	--
12N 28W 5CC 1	79-09-11	--	--	--	160	--	--	--	--	--
12N 30W 4DBD 1	79-08-31	--	--	--	80	--	--	--	--	--
12N 31W21AAC 1	79-05-09	--	--	--	80	--	--	--	--	--
	79-08-31	--	--	--	40	--	--	--	--	--
12N 32W19CAC 1	79-08-31	--	--	--	40	--	--	--	--	--
12N 33W19BBD 1	79-05-12	--	--	--	40	--	--	--	--	--

LOCAL IDENT- I- FIER	DATE OF SAMPLE	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)
			JEFFERSON					
2N 2E21AB 1	79-08-31	--	--	--	--	--	--	--
2N 3E27AA 1	79-08-31	--	--	--	--	--	--	--
3N 1E17AA 1	79-08-30	--	--	--	--	--	--	--
			KEARNEY					
5N 13W15CD 1	79-07-25	--	--	--	--	--	--	--
5N 14W 7AB 1	79-07-25	--	--	--	--	--	--	--
6N 13W16CC 1	79-07-25	--	--	--	--	--	--	--
6N 14W 6CB 1	79-07-25	--	--	--	--	--	--	--
7N 14W23CC 1	79-07-26	--	--	--	--	--	--	--
			KEYA PAHA					
33N 21W 7AD 1	79-06-26	--	--	4	--	--	--	--
			KNOX					
29N 8W32AAA 1	79-06-27	--	--	<1	--	--	--	--
			LINCOLN					
9N 28W10DB 1	79-09-05	--	--	--	--	--	--	--
9N 29W 9DC 1	79-09-11	--	--	--	--	--	--	--
9N 31W 6DAC 1	79-07-12	--	--	--	--	--	--	--
	79-09-13	--	--	--	--	--	--	--
9N 32W21BA 1	79-08-30	--	--	--	--	--	--	--
9N 34W 3ACA 1	79-08-30	--	--	--	--	--	--	--
9N 34W23DC 1	79-09-11	--	--	--	--	--	--	--
10N 28W20DC 1	79-09-13	--	--	--	--	--	--	--
10N 29W17CA 1	79-09-05	--	--	--	--	--	--	--
10N 30W11CDB 1	79-07-05	--	--	--	--	--	--	--
10N 30W13AC 1	79-09-11	--	--	--	--	--	--	--
10N 30W32CC 1	79-09-11	--	--	--	--	--	--	--
10N 31W 2BBD 1	79-09-05	--	--	--	--	--	--	--
10N 32W20AA 1	79-09-05	--	--	--	--	--	--	--
10N 34W17BBD 1	79-07-12	--	--	--	--	--	--	--
	79-08-29	--	--	--	--	--	--	--
11N 26W 7CD 1	79-09-11	--	--	--	--	--	--	--
11N 30W22AAC 1	79-08-30	--	--	--	--	--	--	--
11N 31W21AAC 1	79-08-30	--	--	--	--	--	--	--
11N 32W10BCAA1	79-09-06	--	--	--	--	--	--	--
11N 33W28DDB 1	79-09-04	--	--	--	--	--	--	--
11N 34W19DDB 1	79-08-30	--	--	--	--	--	--	--
12N 27W28CB 1	79-09-11	--	--	--	--	--	--	--
12N 27W29DCC 1	79-07-13	--	--	--	--	--	--	--
12N 28W 5CC 1	79-09-11	--	--	--	--	--	--	--
12N 30W 4DBD 1	79-08-31	--	--	--	--	--	--	--
12N 31W21AAC 1	79-05-09	--	--	--	--	--	--	--
	79-08-31	--	--	--	--	--	--	--
12N 32W19CAC 1	79-08-31	--	--	--	--	--	--	--
12N 33W19BBD 1	79-05-12	--	--	--	--	--	--	--

LOCAL IDENT- I- FIER	DATE OF SAMPLE	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)
	JEFFERSON				
2N 2E21AB 1	79-08-31	--	--	--	--
2N 3E27AA 1	79-08-31	--	--	--	--
3N 1E17AA 1	79-08-30	--	--	--	--
	KEARNEY				
5N 13W15CD 1	79-07-25	--	--	--	--
5N 14W 7AB 1	79-07-25	--	--	--	--
6N 13W16CC 1	79-07-25	--	--	--	--
6N 14W 6CB 1	79-07-25	--	--	--	--
7N 14W23CC 1	79-07-26	--	--	--	--
	KEYA PAHA				
33N 21W 7AD 1	79-06-26	--	--	--	--
	KNOX				
29N 8W32AAA 1	79-06-27	--	--	--	--
	LINCOLN				
9N 28W10DB 1	79-09-05	--	--	--	--
9N 29W 9DC 1	79-09-11	--	--	--	--
9N 31W 6DAC 1	79-07-12	--	--	--	--
	79-09-13	--	--	--	--
9N 32W21BA 1	79-08-30	--	--	--	--
9N 34W 3ACA 1	79-08-30	--	--	--	--
9N 34W23DC 1	79-09-11	--	--	--	--
10N 28W20DC 1	79-09-13	--	--	--	--
10N 29W17CA 1	79-09-05	--	--	--	--
10N 30W11CDB 1	79-07-05	--	--	--	--
10N 30W13AC 1	79-09-11	--	--	--	--
10N 30W32CC 1	79-09-11	--	--	--	--
10N 31W 2BBD 1	79-09-05	--	--	--	--
10N 32W20AA 1	79-09-05	--	--	--	--
10N 34W17BBD 1	79-07-12	--	--	--	--
	79-08-29	--	--	--	--
11N 26W 7CD 1	79-09-11	--	--	--	--
11N 30W22AAC 1	79-08-30	--	--	--	--
11N 31W21AAC 1	79-08-30	--	--	--	--
11N 32W10BCAA1	79-09-06	--	--	--	--
11N 33W28DDB 1	79-09-04	--	--	--	--
11N 34W19DDB 1	79-08-30	--	--	--	--
12N 27W28CB 1	79-09-11	--	--	--	--
12N 27W29DCC 1	79-07-13	--	--	--	--
12N 28W 5CC 1	79-09-11	--	--	--	--
12N 30W 4DBD 1	79-08-31	--	--	--	--
12N 31W21AAC 1	79-05-09	--	--	--	--
	79-08-31	--	--	--	--
12N 32W19CAC 1	79-08-31	--	--	--	--
12N 33W19BBD 1	79-05-12	--	--	--	--

LOCAL IDENT-I-FIER	LAT-I-TUDE	LONG-I-TUDE	SEQ. NO.	GEO-LOGIC UNIT	DATE OF SAMPLE	TIME	DEPTH OF WELL, TOTAL (FEET) (72008)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)
				LINCOLN						
12N 33W19BBD 1	41 00 01	101 07 39	01	121OGLL	79-08-29	--	400	374	7.8	15.0
12N 34W 6BCD 1	41 02 29	101 14 43	01	121OGLL	79-08-29	--	--	367	7.8	16.0
13N 29W27DD 1	41 03 53	100 37 14	01	121OGLL	79-09-11	--	--	799	7.5	15.0
13N 30W21BCB 1	41 05 13	100 45 49	01	--	79-08-31	--	--	439	8.1	--
13N 32W11ACC 1	41 06 48	100 57 05	01	--	79-07-10	--	--	486	8.1	13.0
				--	79-09-13	--	--	600	7.7	--
13N 33W15CAC 1	41 05 42	101 05 35	01	--	79-08-29	--	--	820	7.5	15.0
13N 34W22ACA 1	41 05 07	101 12 01	01	--	79-08-29	--	--	537	7.7	15.0
				MCPHERSON						
19N 31W 28 4	41 38 50	100 51 44	04	110WDBS	78-10-11	--	41	145	--	--
				110WDBS	78-10-27	--	41	125	--	--
19N 31W 28 5	41 38 50	100 51 44	05	110WDBS	78-10-11	--	41	140	--	--
19N 31W 28 6	41 38 50	100 51 44	06	110WDBS	78-10-16	--	67	1200	--	--
				MORRILL						
17N 49W 3AD 1	41 28 40	102 56 57	01	121OGLL	79-08-02	--	152	430	7.9	13.0
17N 51W14CC 1	41 26 24	103 10 25	01	121OGLL	79-08-01	--	350	325	8.0	12.0
18N 47W 7B 1	41 33 01	102 46 56	01	123BRUL	79-08-03	--	70	620	7.7	13.0
18N 51W13C 1	41 31 39	103 09 17	01	123CDRNB	79-08-03	--	--	350	8.0	12.0
19N 47W 2DB 1	41 38 47	102 42 00	01	123BRUL	79-08-02	--	274	245	8.1	13.0
19N 50W2BDC 1	41 35 04	103 05 19	01	123BRUL	79-08-01	--	90	600	7.6	12.0
20N 50W17BC 1	41 42 29	103 07 05	01	112SDGV	79-07-31	--	180	910	7.7	11.5
21N 51W21BD 1	41 46 55	103 14 23	01	112SDGV	79-08-01	--	97	772	7.8	12.0
22N 49W32BB 1	41 50 41	103 01 51	01	121OGLL	79-08-01	--	81	662	7.7	11.0
22N 50W 2DA 1	41 54 30	103 04 29	01	121OGLL	79-07-31	--	200	252	8.2	11.0
23N 49W34BB 1	41 55 51	102 59 30	01	121OGLL	79-07-31	--	200	320	8.0	10.0
23N 50W31DC 1	41 55 09	103 09 28	01	121OGLL	79-07-31	--	300	343	7.9	11.0
23N 51W17AC 1	41 58 06	103 15 16	01	122ARKR	79-07-31	--	245	342	8.0	11.5
				NUCKOLLS						
2N 5W15BA 1	40 08 43	097 52 12	01	112SDGV	79-08-30	1110	--	589	7.5	15.0
2N 6W 3DA 1	40 10 01	097 58 28	01	112SDGV	79-08-30	1130	--	760	6.5	15.0
3N 5W 8DB 1	40 14 23	097 54 12	01	112SDGV	79-08-30	1545	--	558	7.1	15.0
3N 7W 1CC 1	40 15 02	098 03 52	01	211NBRR	79-08-30	1205	--	595	7.4	15.0
3N 8W12BA 1	40 14 49	098 10 24	01	110QRNR	79-08-30	--	--	690	7.5	14.5
4N 5W 4CB 1	40 20 28	097 53 38	01	112SDGV	79-08-30	1515	--	359	7.4	15.0
4N 6W27AC 1	40 17 12	097 58 45	01	112SDGV	79-08-30	--	--	508	7.2	15.0
4N 7W12BB 1	40 20 02	098 03 52	01	112SDGV	79-08-30	0215	--	715	7.1	15.0
4N 8W19DD 1	40 17 39	098 15 30	01	121OGLL	79-08-30	1340	--	541	7.5	15.0
				POLK						
13N 4W21CCD 2	41 04 34	097 47 11	02	112SDGV	79-06-19	1215	150	648	8.6	15.0
14N 1W 9DAC 1	41 11 45	097 25 46	01	112SDGV	79-06-19	--	270	441	6.9	14.0
				RED WILLOW						
3N 28W10CBB 1	40 14 25	100 28 39	01	--	79-08-30	--	--	705	6.8	15.5
3N 29W15ABB 1	40 13 58	100 34 42	01	--	79-08-31	--	--	336	7.2	20.0
3N 30W 4CDD 1	40 18 57	100 42 47	01	--	79-08-30	--	--	517	7.7	15.5
4N 27W 1AD 1	40 20 41	100 18 46	01	121OGLL	79-07-18	--	--	450	7.8	--

LOCAL IDENT-I-FIER	DATE OF SAMPLE	COLOR (PLAT-INUM-COBALT UNITS) (00080)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE (MG/L AS HCO3) (00440)
LINCOLN										
12N 33W19BBD 1	79-08-29	--	160	0	45	11	12	.4	10	--
12N 34W 6BCD 1	79-08-29	--	170	6	50	10	15	.5	10	--
13N 29W27DD 1	79-09-11	--	250	82	68	20	73	2.0	15	--
13N 30W21BCB 1	79-08-31	--	200	80	62	11	8.7	.3	9.1	--
13N 32W11ACC 1	79-07-10	--	200	92	61	12	17	.5	9.7	--
	79-09-13	--	250	91	79	13	32	.9	13	--
13N 33W15CAC 1	79-08-29	--	360	160	110	21	56	1.3	12	--
13N 34W22ACA 1	79-08-29	--	240	82	72	15	21	.6	11	--
MCPHERSON										
19N 31W 2B 4	78-10-11	1	35	0	11	1.9	15	1.1	3.2	68
	78-10-27	--	43	0	14	1.9	14	.9	3.2	--
19N 31W 2B 5	78-10-11	1	39	0	12	2.1	13	.9	3.2	76
19N 31W 2B 6	78-10-16	--	--	--	--	--	--	--	--	--
MORRILL										
17N 49W 3AD 1	79-08-02	--	170	29	48	12	13	.4	6.1	--
17N 51W14CC 1	79-08-01	--	130	0	38	8.2	9.9	.4	4.8	--
18N 47W 7B 1	79-08-03	--	230	18	65	16	38	1.1	9.2	--
18N 51W13C 1	79-08-03	--	110	0	33	7.2	26	1.1	5.7	--
19N 47W 20B 1	79-08-02	--	89	0	27	5.2	14	.6	6.5	--
19N 50W28DC 1	79-08-01	--	220	0	66	13	38	1.1	8.2	--
20N 50W17BC 1	79-07-31	--	270	43	83	16	83	2.2	12	--
21N 51W21BD 1	79-08-01	--	290	110	92	15	48	1.2	9.4	--
22N 49W32BB 1	79-08-01	--	240	0	70	16	36	1.0	13	--
22N 50W 2DA 1	79-07-31	--	100	2	29	7.2	5.4	.2	6.3	--
23N 49W34BB 1	79-07-31	--	130	0	36	9.3	13	.5	7.6	--
23N 50W31DC 1	79-07-31	--	150	6	42	9.9	7.8	.3	8.1	--
23N 51W17AC 1	79-07-31	--	140	16	38	9.9	15	.6	6.6	--
NUCKOLLS										
2N 5W15BA 1	79-08-30	--	260	48	85	12	21	.6	3.6	260
2N 6W 3DA 1	79-08-30	--	190	140	54	14	64	2.0	5.7	60
3N 5W 8DB 1	79-08-30	--	220	36	74	9.6	28	.8	6.6	230
3N 7W 1CC 1	79-08-30	--	270	33	87	13	21	.6	3.4	290
3N 8W12BA 1	79-08-30	--	330	29	110	14	23	.6	3.1	370
4N 5W 4CB 1	79-08-30	--	150	39	47	6.8	16	.6	4.3	130
4N 6W27AC 1	79-08-30	--	200	16	62	12	25	.8	6.5	230
4N 7W12BB 1	79-08-30	--	320	30	99	17	32	.8	6.4	350
4N 8W19DD 1	79-08-30	--	260	38	79	15	15	.4	4.3	270
POLK										
13N 4W21CCD 2	79-06-19	--	280	0	88	14	29	.8	7.3	--
14N 1W 9DAC 1	79-06-19	--	200	4	65	10	21	.6	7.5	--
RED WILLOW										
3N 28W10CBB 1	79-08-30	--	350	190	110	19	18	.4	13	--
3N 29W15ABB 1	79-08-31	--	140	1	40	10	11	.4	16	--
3N 30W 4CDD 1	79-08-30	--	230	0	60	20	22	.7	11	--
4N 27W 1AD 1	79-07-18	--	250	47	75	14	7.9	.2	7.9	--

LOCAL IDENT- I- FIER	DATE OF SAMPLE	CAR- BONATE (MG/L AS CO3) (00445)	ALKA- LINITY (MG/L AS CACO3) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)
				LINCOLN						
12N 33W19BBD 1	79-08-29	--	160	16	2.5	.4	57	--	258	.35
12N 34W 6BCD 1	79-08-29	--	160	20	5.8	.5	56	--	272	.37
13N 29W27DD 1	79-09-11	--	210	170	25	.6	43	--	545	.74
13N 30W21BCA 1	79-08-31	--	160	38	9.9	.3	57	--	300	.41
13N 32W11ACC 1	79-07-10	--	110	57	6.6	.4	57	--	367	.50
	79-09-13	--	160	120	19	.4	59	--	477	.65
13N 33W15CAC 1	79-08-29	--	200	230	25	.3	57	--	637	.87
13N 34W22ACA 1	79-08-29	--	160	120	19	.4	59	--	420	.57
				MCPHERSON						
19N 31W 2B 4	78-10-11	--	56	5.7	1.4	.2	59	--	138	.19
	78-10-27	--	50	3.9	1.3	.1	58	--	161	.22
19N 31W 2B 5	78-10-11	--	62	4.1	1.0	.2	62	--	136	.19
19N 31W 2B 6	78-10-16	--	100	34	84	.1	42	--	--	--
				MORRILL						
17N 49W 3AD 1	79-08-02	--	140	15	35	.5	54	287	277	.39
17N 51W14CC 1	79-08-01	--	130	15	4.3	.5	55	--	225	.65
18N 47W 7B 1	79-08-03	--	210	83	10	.1	57	419	415	.57
18N 51W13C 1	79-08-03	--	140	18	5.2	.5	62	260	259	.35
19N 47W 2DB 1	79-08-02	--	99	14	1.1	.6	60	200	199	.27
19N 50W28DC 1	79-08-01	--	230	51	8.9	.6	57	408	425	.55
20N 50W17BC 1	79-07-31	--	230	200	21	.5	69	627	675	.85
21N 51W21BD 1	79-08-01	--	180	180	22	.5	59	560	542	.76
22N 49W32BB 1	79-08-01	--	270	42	5.8	.6	58	422	426	.57
22N 50W 2DA 1	79-07-31	--	100	9.8	.8	.7	59	191	185	.26
23N 49W34BB 1	79-07-31	--	140	22	1.0	.9	60	236	236	.32
23N 50W31DC 1	79-07-31	--	140	11	3.8	.5	58	235	244	.32
23N 51W17AC 1	79-07-31	--	120	15	4.4	.5	60	240	247	.33
				NUCKOLLS						
2N 5W15BA 1	79-08-30	0	213	35	35	--	--	--	--	--
2N 6W 3DA 1	79-08-30	0	49	46	86	--	--	--	--	--
3N 5W 8DB 1	79-08-30	0	189	61	23	--	--	--	--	--
3N 7W 1CC 1	79-08-30	0	238	31	31	--	--	--	--	--
3N 8W12BA 1	79-08-30	0	303	31	19	--	--	--	--	--
4N 5W 4CB 1	79-08-30	0	107	26	12	--	--	--	--	--
4N 6W27AC 1	79-08-30	0	189	48	18	--	--	--	--	--
4N 7W12BB 1	79-08-30	0	287	33	29	--	--	--	--	--
4N 8W19DD 1	79-08-30	0	221	23	24	--	--	--	--	--
				POLK						
13N 4W21CCD 2	79-06-19	--	290	30	9.6	.3	34	--	408	.55
14N 1W 9DAC 1	79-06-19	--	200	26	8.9	.3	39	--	320	.44
				RED WILLOW						
3N 28W10CBB 1	79-08-30	--	320	32	7.5	.3	58	--	371	.50
3N 29W15ABB 1	79-08-31	--	140	19	6.0	.5	33	--	229	.31
3N 30W 8CDD 1	79-08-30	--	240	25	5.4	.7	60	--	365	.50
4N 27W 1BD 1	79-07-18	--	220	14	2.3	.6	55	--	326	.44

LOCAL IDENT-I-FIER	DATE OF SAMPLE	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P) (00666)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)
				LINCOLN						
12N 33W19BBD 1	79-08-29	--	1.8	--	--	--	--	--	--	--
12N 34W 6BCD 1	79-08-29	--	1.9	--	--	--	--	--	--	--
13N 29W27DD 1	79-09-11	--	.93	--	--	--	--	--	--	--
13N 30W21BCB 1	79-08-31	--	1.8	--	--	--	--	--	--	--
13N 32W11ACC 1	79-07-10	--	18	--	--	--	--	--	--	--
	79-09-13	--	1.3	--	--	--	--	--	--	--
13N 33W15CAC 1	79-08-29	--	1.2	--	--	--	--	--	--	--
13N 34W22ACA 1	79-08-29	--	1.5	--	--	--	--	--	--	--
				MCPHERSON						
19N 31W 29 4	78-10-11	--	1.5	--	--	--	--	--	.28	--
	78-10-27	--	7.9	--	--	--	--	--	--	--
19N 31W 28 5	78-10-11	--	.29	--	--	--	--	--	.38	--
19N 31W 29 6	78-10-16	--	75	--	--	--	--	--	--	--
				MORRILL						
17N 49W 3AD 1	79-08-02	--	2.0	--	--	--	--	--	--	--
17N 51W14CC 1	79-08-01	--	2.6	--	--	--	--	--	--	--
18N 47W 7B 1	79-08-03	--	2.3	--	--	--	--	--	--	--
18N 51W13C 1	79-08-03	--	3.8	--	--	--	--	--	--	--
19N 47W 20B 1	79-08-02	--	2.4	--	--	--	--	--	--	--
19N 50W29DC 1	79-08-01	--	9.9	--	--	--	--	--	--	--
20N 50W17BC 1	79-07-31	--	8.9	--	--	--	--	--	--	--
21N 51W21BD 1	79-08-01	--	1.7	--	--	--	--	--	--	--
22N 49W32BB 1	79-08-01	--	5.0	--	--	--	--	--	--	--
22N 50W 20A 1	79-07-31	--	1.5	--	--	--	--	--	--	--
23N 49W34BB 1	79-07-31	--	.38	--	--	--	--	--	--	--
23N 50W31DC 1	79-07-31	--	4.3	--	--	--	--	--	--	--
23N 51W17AC 1	79-07-31	--	5.7	--	--	--	--	--	--	--
				NUCKOLLS						
2N 5W15BA 1	79-08-30	--	3.0	--	--	--	--	--	--	--
2N 6W 30A 1	79-08-30	--	37	--	--	--	--	--	--	--
3N 5W 8DB 1	79-08-30	--	3.1	--	--	--	--	--	--	--
3N 7W 1CC 1	79-08-30	--	1.8	--	--	--	--	--	--	--
3N 8W12BA 1	79-08-30	--	3.9	--	--	--	--	--	--	--
4N 5W 8CB 1	79-08-30	--	4.3	--	--	--	--	--	--	--
4N 6W27AC 1	79-08-30	--	.98	--	--	--	--	--	--	--
4N 7W12BB 1	79-08-30	--	3.4	--	--	--	--	--	--	--
4N 8W19DD 1	79-08-30	--	1.9	--	--	--	--	--	--	--
				POLK						
13N 4W21CCD 2	79-06-19	--	4.9	--	--	--	--	--	.42	--
14N 1W 9DAC 1	79-06-19	--	4.9	--	--	--	--	--	.45	--
				RED WILLOW						
3N 28W10CBB 1	79-08-30	--	3.8	--	--	--	--	--	--	--
3N 29W15ABB 1	79-08-31	--	2.1	--	--	--	--	--	--	--
3N 30W 4CDD 1	79-08-30	--	3.7	--	--	--	--	--	--	--
4N 27W 1AD 1	79-07-18	--	1.9	--	--	--	--	--	--	--

LOCAL IDENT-I-FIER	DATE OF SAMPLE	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)
LINCOLN										
12N 33W19BBD 1	79-08-29	--	--	--	60	--	--	--	--	--
12N 34W 6BCD 1	79-08-29	--	--	--	60	--	--	--	--	--
13N 29W27DD 1	79-09-11	--	--	--	140	--	--	--	--	--
13N 30W21BCB 1	79-08-31	--	--	--	50	--	--	--	--	--
13N 32W11ACC 1	79-07-10	--	--	--	50	--	--	--	--	--
	79-09-13	--	--	--	80	--	--	--	--	--
13N 33W15CAC 1	79-08-29	--	--	--	100	--	--	--	--	--
13N 34W22ACA 1	79-08-29	--	--	--	70	--	--	--	--	--
MCPHERSON										
19N 31W 2B 4	78-10-11	--	--	--	30	--	--	--	--	40
	78-10-27	--	--	--	10	--	--	--	--	80
19N 31W 2A 5	78-10-11	--	--	--	50	--	--	--	--	40
19N 31W 2B 6	78-10-16	--	--	--	--	--	--	--	--	--
MORRILL										
17N 49W 3AD 1	79-08-02	4	--	--	50	<1	20	--	1	10
17N 51W14CC 1	79-08-01	4	--	--	40	2	10	--	2	10
18N 47W 7A 1	79-08-03	9	--	--	90	<1	20	--	0	<10
18N 51W13C 1	79-08-03	8	--	--	60	<1	10	--	0	<10
19N 47W 2DB 1	79-08-02	8	--	--	40	<1	10	--	2	<10
19N 50W28DC 1	79-08-01	9	--	--	80	<1	10	--	0	<10
20N 50W17BC 1	79-07-31	6	--	--	100	--	20	--	1	10
21N 51W21BD 1	79-08-01	6	--	--	160	--	0	--	3	20
22N 49W32AA 1	79-08-01	10	--	--	80	--	0	--	3	20
22N 50W 20A 1	79-07-31	13	--	--	30	--	10	--	1	<10
23N 49W34AB 1	79-07-31	11	--	--	40	--	0	--	0	10
23N 50W31DC 1	79-07-31	8	--	--	30	--	0	--	2	10
23N 51W17AC 1	79-07-31	5	--	--	40	--	10	--	2	10
NUCKOLLS										
2N 5W15BA 1	79-08-30	--	--	--	--	--	--	--	--	--
2N 6W 3DA 1	79-08-30	--	--	--	--	--	--	--	--	--
3N 5W 8DB 1	79-08-30	--	--	--	--	--	--	--	--	--
3N 7W 1CC 1	79-08-30	--	--	--	--	--	--	--	--	--
3N 8W12BA 1	79-08-30	--	--	--	--	--	--	--	--	--
4N 5W 4CB 1	79-08-30	--	--	--	--	--	--	--	--	--
4N 6W27AC 1	79-08-30	--	--	--	--	--	--	--	--	--
4N 7W12BB 1	79-08-30	--	--	--	--	--	--	--	--	--
4N 8W19DD 1	79-08-30	--	--	--	--	--	--	--	--	--
POLK										
13N 4W21CCD 2	79-06-19	--	--	--	50	--	--	--	--	10
14N 1W 9DAC 1	79-06-19	--	--	--	60	--	--	--	--	0
RED WILLOW										
3N 28W10CBB 1	79-08-30	--	--	--	110	--	--	--	--	--
3N 29W15ABB 1	79-08-31	--	--	--	70	--	--	--	--	--
3N 30W 4CDD 1	79-08-30	--	--	--	100	--	--	--	--	--
4N 27W 1AD 1	79-07-10	--	--	--	50	--	--	--	--	--

LOCAL IDENT-I-FIER	DATE OF SAMPLE	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	LITHIUM DIS-SOLVED (UG/L AS LI) (01130)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)
				LINCOLN				
12N 33W19BBD 1	79-08-29	--	--	--	--	--	--	--
12N 34W 6BCD 1	79-08-29	--	--	--	--	--	--	--
13N 29W27DD 1	79-09-11	--	--	--	--	--	--	--
13N 30W21BCB 1	79-08-31	--	--	--	--	--	--	--
13N 32W11ACC 1	79-07-10	--	--	--	--	--	--	--
	79-09-13	--	--	--	--	--	--	--
13N 33W15CAC 1	79-08-29	--	--	--	--	--	--	--
13N 34W22ACA 1	79-08-29	--	--	--	--	--	--	--
				MCPHERSON				
19N 31W 2B 4	78-10-11	--	--	2	--	--	--	--
	78-10-27	--	--	0	--	--	--	--
19N 31W 2B 5	78-10-11	--	--	8	--	--	--	--
19N 31W 2B 6	78-10-16	--	--	--	--	--	--	--
				MORRILL				
17N 49W 3AD 1	79-08-02	0	--	<1	.4	--	--	1
17N 51W14CC 1	79-08-01	0	--	<1	.3	--	--	1
18N 47W 7B 1	79-08-03	0	--	2	.0	--	--	3
18N 51W13C 1	79-08-03	0	--	<1	.0	--	--	2
19N 47W 20B 1	79-08-02	0	--	<1	.3	--	--	1
19N 50W28DC 1	79-08-01	0	--	<1	.0	--	--	5
20N 50W17AC 1	79-07-31	0	--	<1	.0	--	--	4
21N 51W21BD 1	79-08-01	3	--	2	.1	--	--	3
22N 49W32BB 1	79-08-01	3	--	4	.0	--	--	1
22N 50W 20A 1	79-07-31	0	--	<1	.0	--	--	0
23N 49W34BB 1	79-07-31	0	--	90	.0	--	--	0
23N 50W31DC 1	79-07-31	0	--	2	.0	--	--	2
23N 51W17AC 1	79-07-31	2	--	<1	.0	--	--	1
				NUCKOLLS				
2N 5W15BA 1	79-08-30	--	--	--	--	--	--	--
2N 6W 3DA 1	79-08-30	--	--	--	--	--	--	--
3N 5W 8DB 1	79-08-30	--	--	--	--	--	--	--
3N 7W 1CC 1	79-08-30	--	--	--	--	--	--	--
3N 8W12BA 1	79-08-30	--	--	--	--	--	--	--
4N 5W 4CB 1	79-08-30	--	--	--	--	--	--	--
4N 6W27AC 1	79-08-30	--	--	--	--	--	--	--
4N 7W12BB 1	79-08-30	--	--	--	--	--	--	--
4N 8W19DD 1	79-08-30	--	--	--	--	--	--	--
				POLK				
13N 4W21CCD 2	79-06-19	--	--	10	--	--	--	--
14N 1W 9DAC 1	79-06-19	--	--	10	--	--	--	--
				RED WILLOW				
3N 28W10CDA 1	79-08-30	--	--	--	--	--	--	--
3N 29W15ABB 1	79-08-31	--	--	--	--	--	--	--
3N 30W 4CDD 1	79-08-30	--	--	--	--	--	--	--
4N 27W 1AD 1	79-07-18	--	--	--	--	--	--	--

LOCAL IDENT- I- FIER	DATE OF SAMPLE	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)
		LINCOLN			
12N 33W19BBD 1	79-08-29	--	--	--	--
12N 34W 6BCD 1	79-08-29	--	--	--	--
13N 29W27DD 1	79-09-11	--	--	--	--
13N 30W21BCB 1	79-08-31	--	--	--	--
13N 32W11ACC 1	79-07-10	--	--	--	--
	79-09-13	--	--	--	--
13N 33W15CAC 1	79-08-29	--	--	--	--
13N 34W22ACA 1	79-08-29	--	--	--	--
		MCPHERSON			
19N 31W 2B 4	78-10-11	--	--	--	--
	78-10-27	--	--	--	--
19N 31W 2B 5	78-10-11	--	--	--	--
19N 31W 2B 6	78-10-16	--	--	--	--
		MORRILL			
17N 49W 3AD 1	79-08-02	--	--	--	<3
17N 51W14CC 1	79-08-01	--	--	--	<3
18N 47W 7B 1	79-08-03	--	--	--	<3
18N 51W13C 1	79-08-03	--	--	--	<3
19N 47W 2DA 1	79-08-02	--	--	--	10
19N 50W2BDC 1	79-08-01	--	--	--	<3
20N 50W17AC 1	79-07-31	--	--	--	<3
21N 51W21BD 1	79-08-01	--	--	--	6
22N 49W32BB 1	79-08-01	--	--	--	20
22N 50W 2DA 1	79-07-31	--	--	--	<3
23N 49W34BB 1	79-07-31	--	--	--	<3
23N 50W31DC 1	79-07-31	--	--	--	5
23N 51W17AC 1	79-07-31	--	--	--	<3
		NUCKOLLS			
2N 5W15BA 1	79-08-30	--	--	--	--
2N 6W 30A 1	79-08-30	--	--	--	--
3N 5W 8DB 1	79-08-30	--	--	--	--
3N 7W 1CC 1	79-08-30	--	--	--	--
3N 8W12BA 1	79-08-30	--	--	--	--
4N 5W 4CB 1	79-08-30	--	--	--	--
4N 6W27AC 1	79-08-30	--	--	--	--
4N 7W12DB 1	79-08-30	--	--	--	--
4N 8W19DD 1	79-08-30	--	--	--	--
		POLK			
13N 4W21CCD 2	79-06-19	--	--	--	--
14N 1W 9DAC 1	79-06-19	--	--	--	--
		RED WILLOW			
3N 28W10CBB 1	79-08-30	--	--	--	--
3N 29W15ABB 1	79-08-31	--	--	--	--
3N 30W 4CDD 1	79-08-30	--	--	--	--
4N 27W 1AD 1	79-07-18	--	--	--	--

LOCAL IDENT-I-FIER	LAT-I-TUDE	LONG-I-TUDE	SEQ. NO.	GEO-LOGIC UNIT	DATE OF SAMPLE	TIME	DEPTH OF WELL, TOTAL (FEET) (72008)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)
RED WILLOW										
4N 27W 1AD 1	40 20 41	100 18 46	01	121OGLL	79-09-12	--	--	450	7.4	15.5
4N 27W29AAB 1	40 17 29	100 23 26	01	--	79-08-31	--	--	532	7.6	15.5
4N 28W22ABC 1	40 18 13	100 28 05	01	--	79-08-30	--	--	450	7.7	16.5
4N 29W 5BD 1	40 20 39	100 37 08	01	121OGLL	79-09-11	--	--	502	7.5	15.0
4N 29W13CDA 1	40 19 32	100 32 37	01	--	79-08-30	--	--	417	7.6	17.0
SALINE										
8N 3E20ABCC1	40 39 04	097 06 42	01	112SDGV	79-06-20	1745	192	491	7.3	14.0
SEWARD										
11N 1E29BC 1	40 53 30	097 20 48	01	112SDGV	79-06-19	1410	254	579	6.9	15.0
11N 2E26AD 6	40 53 43	097 09 39	06	112SDGV	79-06-19	0820	117	522	6.9	13.0
SHERIDAN										
28N 43W26DA 1	42 22 32	102 17 50	01	121OGLL	79-07-26	--	--	135	7.9	11.0
31N 42W24BA 1	42 39 18	102 11 48	01	121OGLL	79-07-26	--	238	230	8.1	12.0
32N 43W36AC 1	42 42 30	102 18 33	01	121OGLL	79-07-26	--	220	305	7.9	11.0
SHERMAN										
15N 13W27AB 2	41 14 52	098 47 21	02	121OGLL	78-10-04	--	200	400	7.3	15.5
				121OGLL	79-07-30	1540	200	500	7.5	13.5
15N 14W 7CA 1	41 17 06	098 58 10	01	121OGLL	78-10-04	--	150	612	7.2	14.5
				121OGLL	79-05-29	--	150	500	7.6	14.0
				121OGLL	79-07-30	1155	150	565	7.3	14.5
SIOUX										
28N 56W 9AB 1	42 04 16	103 49 22	01	123ARUL	79-08-29	--	--	488	7.2	13.5
28N 53W19DD 1	42 22 50	103 32 30	01	122ARKR	79-08-29	--	--	342	8.0	13.0
28N 56W14C 1	42 23 41	103 49 36	01	122ARKR	79-08-29	--	--	380	7.6	17.0
THAYER										
3N 1W11AD 1	40 14 36	097 23 24	01	112SDGV	79-08-30	1830	--	318	7.1	15.0
3N 3W24DA 1	40 12 38	097 35 46	01	112SDGV	79-08-30	1715	--	321	7.2	15.0
4N 4W18BD 1	40 18 57	097 48 48	01	112SDGV	79-08-30	1610	--	328	7.2	15.0
WEBSTER										
4N 9W28DA 1	40 17 00	098 19 55	01	112SDGV	79-07-26	1515	90	855	7.5	14.5
4N 10W 4DC 2	40 20 11	098 27 05	02	112SDGV	79-07-26	1435	200	599	7.6	15.5
4N 11W14DC 1	40 18 31	098 31 34	01	112SDGV	79-07-26	1355	135	673	7.6	15.0
4N 11W18AA 3	40 19 06	098 35 48	03	112SDGV	79-07-26	1330	168	573	7.9	14.0
4N 12W28CD 1	40 16 46	098 40 54	01	112SDGV	79-07-26	1250	180	575	7.4	15.0
YORK										
9N 4W 6AC 1	40 46 46	097 48 51	01	112SDGV	79-06-19	1610	171	429	7.2	15.0
11N 2W31CA 1	40 52 42	097 35 25	01	112SDGV	79-06-19	1515	138	499	7.2	15.0
12N 1W11BC 2	41 01 37	097 24 13	02	112SDGV	79-06-19	1320	156	621	7.1	14.0

LOCAL IDENT-I-FIER	DATE OF SAMPLE	COLOR (PLAT-INUM-COBALT UNITS) (00080)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE (MG/L AS HCO3) (00440)
				RED WILLOW						
4N 27W 1AD 1	79-09-12	--	220	0	66	13	7.1	.2	8.8	--
4N 27W29AAB 1	79-08-31	--	270	10	70	23	12	.3	10	--
4N 28W22ABC 1	79-08-30	--	210	0	58	18	16	.5	11	--
4N 29W 5BD 1	79-09-11	--	210	0	55	18	19	.6	13	--
4N 29W13CDA 1	79-08-30	--	180	0	46	16	16	.5	11	--
				SALINE						
8N 3E20ABCC1	79-06-20	--	230	0	73	11	28	.8	5.3	--
				SEWARD						
11N 1E29BC 1	79-06-19	--	250	23	80	13	32	.9	5.7	--
11N 2E26AD 6	79-06-19	--	230	28	73	11	37	1.1	7.2	--
				SHERIDAN						
28N 43W26DA 1	79-07-26	--	50	0	16	2.4	4.5	.3	4.5	--
31N 42W20BA 1	79-07-26	--	91	0	28	5.0	6.0	.3	6.2	--
32N 43W36AC 1	79-07-26	--	130	0	40	6.7	8.0	.3	7.0	--
				SHERMAN						
15N 13W27AB 2	78-10-04	--	230	0	71	12	7.8	.2	6.1	290
	79-07-30	--	280	29	87	14	9.4	.2	6.6	300
15N 14W 7CA 1	78-10-04	--	280	13	94	12	10	.3	6.9	330
	79-05-29	--	270	21	89	11	11	.3	6.9	300
	79-07-30	--	290	28	95	13	11	.3	6.9	320
				SIOUX						
28N 56W 9AB 1	79-08-29	--	200	70	62	11	22	.7	5.5	--
28N 53W19DD 1	79-08-29	--	140	0	44	8.0	21	.8	4.9	--
28N 56W14C 1	79-08-29	--	120	0	37	7.0	36	1.4	9.2	--
				THAYER						
3N 1W11AD 1	79-08-30	--	110	0	34	5.6	21	.9	4.5	180
3N 3W24DA 1	79-08-30	--	120	0	40	5.8	18	.7	4.2	160
4N 4W19BD 1	79-08-30	--	130	0	42	6.3	15	.6	4.8	160
				WEBSTER						
4N 9W28DA 1	79-07-26	--	410	150	140	15	12	.3	5.6	320
4N 10W 4DC 2	79-07-26	--	300	57	100	13	11	.3	5.0	300
4N 11W14DC 1	79-07-26	--	340	90	110	15	10	.3	4.8	300
4N 11W19AA 3	79-07-26	--	270	50	89	12	11	.3	5.9	270
4N 12W2BCD 1	79-07-26	--	240	10	76	12	14	.4	6.7	280
				YORK						
9N 4W 6AC 1	79-06-19	--	220	18	69	11	23	.7	5.9	--
11N 2W31CA 1	79-06-19	--	240	7	75	12	28	.8	6.2	--
12N 1W11BC 2	79-06-19	--	290	0	93	13	26	.7	5.9	--

LOCAL IDENT-I-FIER	DATE OF SAMPLE	CAR-BONATE (MG/L AS CO3) (00445)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)
				RED WILLOW						
4N 27W 1AD 1	79-09-12	--	220	14	3.6	.7	60	--	317	.43
4N 27W29AAB 1	79-08-31	--	260	19	3.1	.6	61	--	372	.51
4N 28W22ABC 1	79-08-30	--	210	21	3.7	.8	65	--	326	.44
4N 29W 5BD 1	79-09-11	--	220	20	9.7	.9	66	--	349	.47
4N 29W13CDA 1	79-08-30	--	190	21	4.5	.8	47	--	283	.38
				SALINE						
8N 3E20ABCC1	79-06-20	--	230	54	11	.3	29	--	351	.48
				SEWARD						
11N 1E29BC 1	79-06-19	--	230	39	11	.4	34	--	389	.53
11N 2E26AD 6	79-06-19	--	200	74	4.7	.3	33	--	363	.49
				SHERIDAN						
28N 43W26DA 1	79-07-26	--	53	5.7	.6	.4	57	129	133	.18
31N 42W24BA 1	79-07-26	--	98	7.8	1.2	.4	62	178	183	.24
32N 43W36AC 1	79-07-26	--	140	13	3.5	.3	60	222	230	.30
				SHERMAN						
15N 13W27AB 2	78-10-04	0	238	14	3.8	--	--	--	--	--
	79-07-30	0	246	16	5.5	--	--	--	--	--
15N 14W 7CA 1	78-10-04	0	271	23	3.5	--	--	--	--	--
	79-05-29	0	246	22	4.1	--	--	--	--	--
	79-07-30	0	262	23	4.3	--	--	--	--	--
				SIOUX						
28N 56W 9AB 1	79-08-29	--	130	120	8.6	.4	55	359	374	.49
28N 53W19DD 1	79-08-29	--	150	14	4.3	.6	53	256	263	.35
28N 56W14C 1	79-08-29	--	130	40	4.1	.5	69	290	298	.39
				THAYER						
3N 1W11AD 1	79-08-30	0	115	29	8.1	--	--	--	--	--
3N 3W24DA 1	79-08-30	0	131	19	7.9	--	--	--	--	--
4N 4W1ABD 1	79-08-30	0	131	17	9.1	--	--	--	--	--
				WEBSTER						
4N 9W28DA 1	79-07-26	0	262	26	70	--	--	--	--	--
4N 10W 4DC 2	79-07-26	0	246	38	20	--	--	--	--	--
4N 11W14DC 1	79-07-26	0	246	28	37	--	--	--	--	--
4N 11W14AA 3	79-07-26	0	221	22	32	--	--	--	--	--
4N 12W24CD 1	79-07-26	0	230	40	16	--	--	--	--	--
				YORK						
9N 4W 6AC 1	79-06-19	--	200	34	19	.4	31	--	314	.43
11N 2W31CA 1	79-06-19	--	230	40	11	.3	34	--	349	.47
12N 1W11BC 2	79-06-19	--	290	25	11	.3	38	--	404	.55

LOCAL IDENT- I- FIER	DATE OF SAMPLE	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00666)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)
				RED WILLOW						
4N 27W 1AD 1	79-09-12	--	2.5	--	--	--	--	--	--	--
4N 27W29AAB 1	79-08-31	--	3.9	--	--	--	--	--	--	--
4N 28W22ABC 1	79-08-30	--	2.4	--	--	--	--	--	--	--
4N 29W 5BD 1	79-09-11	--	3.5	--	--	--	--	--	--	--
4N 29W13CDA 1	79-08-30	--	1.5	--	--	--	--	--	--	--
				SALINE						
8N 3E20ABCC1	79-06-20	--	.28	--	--	--	--	--	.08	--
				SEWARD						
11N 1E29BC 1	79-06-19	--	8.1	--	--	--	--	--	.20	--
11N 2E26AD 6	79-06-19	--	.59	--	--	--	--	--	.31	--
				SHERIDAN						
28N 43W26DA 1	79-07-26	--	2.3	--	--	--	--	--	--	--
31N 42W24BA 1	79-07-26	--	1.7	--	--	--	--	--	--	--
32N 43W36AC 1	79-07-26	--	1.6	--	--	--	--	--	--	--
				SHERMAN						
15N 13W27AB 2	78-10-04	--	1.9	--	--	--	--	--	--	--
	79-07-30	--	1.9	--	--	--	--	--	--	--
15N 14W 7CA 1	78-10-04	--	1.7	--	--	--	--	--	--	--
	79-05-29	--	1.9	--	--	--	--	--	--	--
	79-07-30	--	1.9	--	--	--	--	--	--	--
				SIOUX						
24N 56W 9AB 1	79-08-29	--	2.5	--	--	--	--	--	--	--
28N 53W19DD 1	79-08-29	--	5.1	--	--	--	--	--	--	--
28N 56W14C 1	79-08-29	--	3.8	--	--	--	--	--	--	--
				THAYER						
3N 1W11AD 1	79-08-30	--	2.5	--	--	--	--	--	--	--
3N 3W24DA 1	79-08-30	--	2.7	--	--	--	--	--	--	--
4N 4W18BD 1	79-08-30	--	2.1	--	--	--	--	--	--	--
				WEBSTER						
4N 9W28DA 1	79-07-26	--	--	--	--	--	--	--	--	--
4N 10W 8DC 2	79-07-26	--	2.3	--	--	--	--	--	--	--
4N 11W14DC 1	79-07-26	--	14	--	--	--	--	--	--	--
4N 11W18AA 3	79-07-26	--	2.6	--	--	--	--	--	--	--
4N 12W28CD 1	79-07-26	--	1.1	--	--	--	--	--	--	--
				YORK						
9N 4W 6AC 1	79-06-19	--	--	--	--	--	--	--	--	--
11N 2W31CA 1	79-06-19	--	1.0	--	--	--	--	--	.17	--
12N 1W11BC 2	79-06-19	--	8.0	--	--	--	--	--	.28	--

LOCAL IDENT-I-FIER	DATE OF SAMPLE	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)
RED WILLOW										
4N 27W 1AD 1	79-09-12	--	--	--	50	--	--	--	--	--
4N 27W29AAB 1	79-08-31	--	--	--	70	--	--	--	--	--
4N 28W22ABC 1	79-08-30	--	--	--	90	--	--	--	--	--
4N 29W 5BD 1	79-09-11	--	--	--	80	--	--	--	--	--
4N 29W13CDA 1	79-08-30	--	--	--	80	--	--	--	--	--
SALINE										
8N 3E20ABCC1	79-06-20	--	--	--	90	--	--	--	--	10
SEWARD										
11N 1E29BC 1	79-06-19	--	--	--	50	--	--	--	--	20
11N 2E26AD 6	79-06-19	--	--	--	50	--	--	--	--	30
SHERIDAN										
28N 43W26DA 1	79-07-26	6	--	--	3	3	10	--	1	10
31N 42W24BA 1	79-07-26	10	--	--	30	1	0	--	1	10
32N 43W36AC 1	79-07-26	4	--	--	30	2	0	--	1	10
SHERMAN										
15N 13W27AB 2	78-10-04	--	--	--	--	--	--	--	--	--
	79-07-30	--	--	--	--	--	--	--	--	--
15N 14W 7CA 1	78-10-04	--	--	--	--	--	--	--	--	--
	79-05-29	--	--	--	--	--	--	--	--	--
	79-07-30	--	--	--	--	--	--	--	--	--
SIOUX										
24N 56W 9AB 1	79-08-29	4	--	--	70	0	10	--	1	10
28N 53W19DD 1	79-08-29	5	--	--	50	0	10	--	1	0
28N 56W14C 1	79-08-29	7	--	--	80	0	20	--	1	20
THAYER										
3N 1W11AD 1	79-08-30	--	--	--	--	--	--	--	--	--
3N 3W24DA 1	79-08-30	--	--	--	--	--	--	--	--	--
4N 4W18BD 1	79-08-30	--	--	--	--	--	--	--	--	--
WEBSTER										
4N 9W28DA 1	79-07-26	--	--	--	--	--	--	--	--	--
4N 10W 4DC 2	79-07-26	--	--	--	--	--	--	--	--	--
4N 11W14DC 1	79-07-26	--	--	--	--	--	--	--	--	--
4N 11W18AA 3	79-07-26	--	--	--	--	--	--	--	--	--
4N 12W28CD 1	79-07-26	--	--	--	--	--	--	--	--	--
YORK										
9N 4W 6AC 1	79-06-19	--	--	--	80	--	--	--	--	10
11N 2W31CA 1	79-06-19	--	--	--	60	--	--	--	--	50
12N 1W11BC 2	79-06-19	--	--	--	50	--	--	--	--	10

CHEMICAL ANALYSES OF GROUND WATER IN NEBRASKA

LOCAL IDENT- I- FIER	DATE OF SAMPLE	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)
				RED WILLOW				
4N 27W 1AD 1	79-09-12	--	--	--	--	--	--	--
4N 27W29AAB 1	79-08-31	--	--	--	--	--	--	--
4N 28W22ABC 1	79-08-30	--	--	--	--	--	--	--
4N 29W 5BD 1	79-09-11	--	--	--	--	--	--	--
4N 29W13CDA 1	79-08-30	--	--	--	--	--	--	--
				SALINE				
8N 3E20ABCC1	79-06-20	--	--	40	--	--	--	--
				SEWARD				
11N 1E29BC 1	79-06-19	--	--	10	--	--	--	--
11N 2E26AD 6	79-06-19	--	--	0	--	--	--	--
				SHERIDAN				
28N 43W26DA 1	79-07-26	2	--	4	.0	--	--	1
31N 42W24BA 1	79-07-26	0	--	<1	.0	--	--	1
32N 43W36AC 1	79-07-26	0	--	<1	.0	--	--	1
				SHERMAN				
15N 13W27AB 2	78-10-04	--	--	--	--	--	--	--
	79-07-30	--	--	--	--	--	--	--
15N 14W 7CA 1	78-10-04	--	--	--	--	--	--	--
	79-05-29	--	--	--	--	--	--	--
	79-07-30	--	--	--	--	--	--	--
				SIOUX				
24N 56W 9AB 1	79-08-29	0	--	10	.0	--	--	3
28N 53W19DD 1	79-08-29	0	--	0	.2	--	--	2
28N 56W14C 1	79-08-29	0	--	20	.2	--	--	2
				THAYER				
3N 1W11AD 1	79-08-30	--	--	--	--	--	--	--
3N 3W24DA 1	79-08-30	--	--	--	--	--	--	--
4N 4W18BD 1	79-08-30	--	--	--	--	--	--	--
				WEBSTER				
4N 9W28DA 1	79-07-26	--	--	--	--	--	--	--
4N 10W 4DC 2	79-07-26	--	--	--	--	--	--	--
4N 11W14DC 1	79-07-26	--	--	--	--	--	--	--
4N 11W18AA 3	79-07-26	--	--	--	--	--	--	--
4N 12W28CD 1	79-07-26	--	--	--	--	--	--	--
				YORK				
9N 4W 6AC 1	79-06-19	--	--	0	--	--	--	--
11N 2W31CA 1	79-06-19	--	--	70	--	--	--	--
12N 1W11BC 2	79-06-19	--	--	10	--	--	--	--

LOCAL IDENT- I- FIER	DATE OF SAMPLE	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)
RED WILLOW					
4N 27W 1AD 1	79-09-12	--	--	--	--
4N 27W29AAB 1	79-08-31	--	--	--	--
4N 28W22ABC 1	79-08-30	--	--	--	--
4N 29W 5BD 1	79-09-11	--	--	--	--
4N 29W13CDA 1	79-08-30	--	--	--	--
SALINE					
8N 3E20ABCC1	79-06-20	--	--	--	--
SEWARD					
11N 1E29BC 1	79-06-19	--	--	--	--
11N 2E26AD 6	79-06-19	--	--	--	--
SHERIDAN					
28N 43W26DA 1	79-07-26	--	--	--	<3
31N 42W24BA 1	79-07-26	--	--	--	<3
32N 43W36AC 1	79-07-26	--	--	--	<3
SHERMAN					
15N 13W27AB 2	78-10-04	--	--	--	--
	79-07-30	--	--	--	--
15N 14W 7CA 1	78-10-04	--	--	--	--
	79-05-29	--	--	--	--
	79-07-30	--	--	--	--
SIOUX					
24N 56W 9AB 1	79-08-29	--	--	--	5
28N 53W19DD 1	79-08-29	--	--	--	7
28N 56W14C 1	79-08-29	--	--	--	9
THAYER					
3N 1W11AD 1	79-08-30	--	--	--	--
3N 3W24DA 1	79-08-30	--	--	--	--
4N 4W18BD 1	79-08-30	--	--	--	--
WEBSTER					
4N 9W28DA 1	79-07-26	--	--	--	--
4N 10W 4DC 2	79-07-26	--	--	--	--
4N 11W14DC 1	79-07-26	--	--	--	--
4N 11W18AA 3	79-07-26	--	--	--	--
4N 12W28CD 1	79-07-26	--	--	--	--
YORK					
9N 4W 6AC 1	79-06-19	--	--	--	--
11N 2W31CA 1	79-06-19	--	--	--	--
12N 1W11BC 2	79-06-19	--	--	--	--

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FACTORS FOR CONVERTING INCH-POUND UNITS TO INTERNATIONAL SYSTEM UNITS (SI)

The following factors may be used to convert the inch-pound units published herein to the International System of Units (SI). This report contains both the inch-pound and SI unit equivalents in the station manuscript descriptions.

Multiply inch-pound units	By	To obtain SI units
	Length	
inches (in)	$2.54\mathrm{x}10^{1}$	millimeters (mm)
	$2.54\mathrm{x}10^{-2}$	meters (m)
feet (ft)	$3.048\mathrm{x}10^{-1}$	meters (m)
miles (mi)	$1.609\mathrm{x}10^{0}$	kilometers (km)
	Area	
acres	$4.047\mathrm{x}10^{3}$	square meters (m^2)
	$4.047\mathrm{x}10^{-1}$	square hectometers (hm^2)
	$4.047\mathrm{x}10^{-3}$	square kilometers (km^2)
square miles (mi^2)	$2.590\mathrm{x}10^{0}$	square kilometers (km^2)
	Volume	
gallons (gal)	$3.785\mathrm{x}10^{0}$	liters (L)
	$3.785\mathrm{x}10^{0}$	cubic decimeters (dm^3)
	$3.785\mathrm{x}10^{-3}$	cubic meters (m^3)
million gallons	$3.785\mathrm{x}10^{3}$	cubic meters (m^3)
	$3.785\mathrm{x}10^{-3}$	cubic hectometers (hm^3)
cubic feet (ft^3)	$2.832\mathrm{x}10^{1}$	cubic decimeters (dm^3)
	$2.832\mathrm{x}10^{-2}$	cubic meters (m^3)
cfs-days	$2.447\mathrm{x}10^{3}$	cubic meters (m^3)
	$2.447\mathrm{x}10^{-3}$	cubic hectometers (hm^3)
acre-feet (acre-ft)	$1.233\mathrm{x}10^{3}$	cubic meters (m^3)
	$1.233\mathrm{x}10^{-3}$	cubic hectometers (hm^3)
	$1.233\mathrm{x}10^{-6}$	cubic kilometers (km^3)
	Flow	
cubic feet per second (ft^3/s)	$2.832\mathrm{x}10^{1}$	liters per second (L/s)
	$2.832\mathrm{x}10^{1}$	cubic decimeters per second (dm^3/s)
	$2.832\mathrm{x}10^{-2}$	cubic meters per second (m^3/s)
gallons per minute (gal/min)	$6.309\mathrm{x}10^{-2}$	liters per second (L/s)
	$6.309\mathrm{x}10^{-2}$	cubic decimeters per second (dm^3/s)
	$6.309\mathrm{x}10^{-5}$	cubic meters per second (m^3/s)
million gallons per day	$4.381\mathrm{x}10^{1}$	cubic decimeters per second (dm^3/s)
	$4.381\mathrm{x}10^{-2}$	cubic meters per second (m^3/s)
	Mass	
tons (short)	$9.072\mathrm{x}10^{-1}$	megagrams (Mg) or metric tons